Mercury Bioaccumulation in Yellow Perch in Limnocorrals Simulating the Effects of Reservoir Formation

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March 1987

Canadian Data Report of Fisheries and Aquatic Sciences No. 628

87-03332/

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Fisheries and Aquatic Sciences 628

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by

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This is the 8th Data Report
from the Central and Arctic Region, Winnipeg

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Cat. no. Fs 97-13/628E ISSN 0706-6465

Correct citation for this publication is:

Hecky, R.E., R.A. Bodaly, N.E. Strange, D.J. Ramsey, C. Anema, and R.J.P. Fudge. 1987. Mercury bioaccumulation in yellow perch in limnocorrals simulating the effects of reservoir formation. Can. Data Rep. Fish. Aquat. Sci. 628: v + 158 p.

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ABSTRACT

Hecky, R.E., R.A. Bodaly, N.E. Strange, D.J. Ramsey, C. Anema, and R.J.P. Fudge. 1987. Mercury bioaccumulation in yellow perch in limnocorrals simulating the effects of reservoir formation. Can. Data Rep. Fish. Aquat. Sci. 628: v + 158 p.

Four series of limnocorral experiments were conducted to investigate how reservoir formation could increase mercury concentrations in fish. The limnocorrals were 10 m diameter and 2-4 m in depth. They were stocked with young yellow perch and maintained from 60 to 90 days. Experimental treatments included organic materials (moss-peat, spruce boughs, and prairie sod), suspended sediments, inorganic nutrients (to stimulate primary production) and inorganic mercury. Loadings of these materials were made, with the exception of inorganic mercury, to match the water volume:treatment material ratio of known reservoirs.

The ^{203}Hg isotope of mercury was added in order to estimate the available mercury in the experimental systems. The uptake of ^{203}Hg and total Hg by yellow perch was monitored at regular intervals over the course of the experiments. The organic materials consistently stimulated bioaccumulation of methyl mercury in perch muscle. Suspended sediments were generally neutral or stimulatory to Hg bioaccumulation. Inorganic nutrients were not stimulatory. Inorganic mercury did not enhance bioaccumulation within 90 days of its addition. Most of the mercury bioaccumulated in limnocorral fish was natural mercury as mercury added with the radioactive spike never accounted for more than 17% of the mercury in the fish at the end of the experiments.

Key words: mercury; fish; reservoirs (water); limnocorrals; methyl mercury; bioaccumulation; resuspended sediments; soils; vegetation cover.

RÉSUMÉ

Hecky, R.E., R.A. Bodaly, N.E. Strange, D.J. Ramsey, C. Anema, and R.J.P. Fudge. 1987. Mercury bioaccumulation in yellow perch in limnocorrals simulating the effects of reservoir formation. Can. Data Rep. Fish. Aquat. Sci. 628: v + 158 p.

Quatre séries d'expériences en enceintes lacustres ont été effectuées afin d'établir comment la formation des réservoirs pouvait donner lieu à des concentrations en mercure plus élevée dans les poissons. Le diamètre des enceintes lacustres était de 10 m et la profondeur de l'eau, de 2 à 4 m. On y a mis de jeunes perchaudes, qui y sont restées de 60 à 90 jours. Des traitements expérimentaux ont alors été faits au moyen de matières organiques (tourbe mousseuse, rameaux d'épinette, gazon de prairie) de sédiments en suspension, de substances nutritives inorganiques (afin de stimuler la production primaire) et de mercure inorganique. Ces substances, à l'exception du mercure inorganique, ont été ajoutées en quantité telles que le rapport volume d'eau/substances pour le traitement correspondait à celui de réservoirs connus.

L'isotope ^{203}Hg a été ajouté afin d'estimer la quantité de mercure dans les systèmes expérimentaux. La fixation de ^{203}Hg et la concentration totale en Hg dans les perchaudes ontété contrôlées à intervalles réguliers pendant la réalisation de l'expérience. Les substances organiques stimulaient toujours la bioaccumulation de mercure dans les muscles de la perchaude. Les sédiments en suspension, de façon générale, étaient neutres ou stimulaient la bioaccumulation de Hg, contrairement aux substances nutritives inorganiques. Le mercure inorganique n'a pas favorisé la bioaccumulation dans les 90 jours qui ont suivi son addition. Le mercure naturel représentait la plus grande partie du mercure accumulé dans les tissus des poissons dans les enceintes lacustres le mercure légèrement radioactif qui avait été ajouté ne comptant jamais pour plus de 17% du mercure dans les poissons à la fin de l'expérience.

Mots-clés: mercure; reservoir (eau de); enceintes lacustres; mercure méthyle; bioaccumulation; sédiments remis en suspension; sols; couverture végétale.

INTRODUCTION

Limnocorral experiments on mercury bioaccumulation in fish were conducted at Southern Indian Lake in northern Manitoba in 1981-84 to test the effect of treatments which simulated conditions in new northern reservoirs. Bodaly et al. (1984a) documented the increase in mercury concentrations in Southern Indian Lake, Notigi Reservoir and other lakes flooded by the Churchill River Diversion (see Newbury et al. 1984 for details of the diversion project). They also cited numerous other instances of elevated fish mercury concentrations in reservoirs. Mercury methylation in aquatic environments is primarily bacterially mediated (Bisogni 1979). Bodaly et al. (1984a) hypothesized that the addition of new organic substrate from flooded shorelines would enhance bacterial growth and the methylation of mercury. The limnological conditions in Southern Indian Lake and Notigi reservoir during and after impoundment were known (Hecky et al. 1984; Bodaly et al. 1984b), and this knowledge permitted realistic simulation experiments to be conducted and relevant hypotheses to be tested.

A limnocorral approach offered the best compromise between control and realism. In every year either controls or a treatment were replicated to estimate the variance between limnocorrals. A radioisotope of mercury was added as an inorganic salt ($HgCl_2$) to provide sensitivity to our analysis. The bivalent mercury ion is the only species of mercury which is methylated (Bisogni 1979) so that by tagging this pool the methylation of mercury and the movement of mercury through the food chain can be followed. Total dissolved mercury concentrations were always below or at the detection limit in the Churchill River Diversion area (Bodaly et al. 1984a, 1987). Consequently the movement of mercury from the water to the biota could not be followed without the radioisotope. Significant amounts of mercury are added with the radioisotope spike and ambient mercury concentrations are unknown, so the experiments are not true tracer experiments. However, the radioisotope does provide a means of following the bioaccumulation of available mercury into fish and comparing the effects of different treatments. This approach and methodology was chosen because it was successfully applied to the mercury problem in the English-Wabigoon river system in northwestern Ontario (Rudd et al. 1983).

In each year of limnocorral experiments, the effects of different terrestrial materials on mercury accumulation in fish were investigated. In 1981 moss and underlying peat which forms the dominant ground cover and fine-grained clays which form the greatest mass of material eroding into Southern Indian Lake (Newbury and McCullough 1984; Hecky and McCullough 1984) were used as treatments. In 1982 these same materials were again used but emphasis in the experiments was on different loading rates of moss-peat, the effect of time of submersion of the moss-peat and the effect of eroded clays on the methylating activity of lake sediment. In 1983, the reproducibility of the moss-peat treatment was examined as well as the effect of time of submersion and the combined effect of moss-peat and suspended sediment added together. In 1984, the last year of experiments, different kinds of organic substrates, moss-peat, black spruce and prairie soil were studied as well as the effect of mercury concentration alone.

METHODS

LIMNOCORRAL SITE

The limnocorrals were all installed in a small protected bay off Wupaw Bay, Southern Indian Lake. Bodaly and Lesack (1984) concluded that reservoir formation had minimal effect on northern pike in the bay. Wupaw Bay was inundated in 1976, but it had the lowest proportion of flooding of any region on Southern Indian Lake (only 9% increase in surface area). Yellow perch in the bay have the lowest concentration of Hg of any region surveyed in Southern Indian Lake, but concentrations in perch were somewhat higher than perch from unflooded control lakes (Bodaly et al. 1987). The protected nature of the bay combined with the large amount of background information for the area made it the preferred choice for siting the limnocorral experiments.

LIMNOCORRAL CONSTRUCTION

The limnocorrals used in these experiments were installed in 10 m diameter wooden rings floating on styrofoam blocks attached with plastic strapping. The wall material of the enclosures was translucent, fiber-reinforced polyethylene. In 1981 five of the limnocorrals had sewn-in plastic bottoms (Table 1) while two had their walls sealed to the lake sediment surface (a silty clay) with sand bags placed by SCUBA divers on the excess wall material. In all other years all limnocorrals were sealed to the sediment surface. All the limnocorrals in a given year were installed between two and four meters deep within a period of two to three days in late June.

A known amount of tritiated water was added to each limnocorral after installation. The observed dilution of the spike of tritium allowed estimation of the volume of water in each limnocorral (Table 1). From this volume estimate, the mean depth of the limnocorral could be calculated assuming a 10 m diameter. Monitoring of tritium activity throughout the duration of the experiments served as a check for leakage. No leakage problems were observed in newly installed limnocorrals over the 60-90 day course of these experiments. Some limnocorrals were reused the following year after having been left installed over the winter. In one instance, some leakage occurred in one of these reused limnocorrals (Table 1; OC82-5), but this was easily corrected by sewing the material.

TREATMENTS

The treatment materials added to each limnocorral are identified in Table 1 and specific details are given in Table 2. In every year at least one control limnocorral was established which received no other treatment after installation other than the radioisotope spike and the addition of fish (see below). Also in every year at least one limnocorral received a "low" moss-peat treatment. A "low" treatment was defined as the addition of approximately 500 kg wet weight of moss-peat grubbed from the soil surface to the depth of permafrost (normally about 10 cm in mid-June). In every year this material was taken from an area immediately adjacent to the bay in which the limnocorrals were installed. In 1982 the "high" moss-peat treatment consisted of the addition of 1000 kg wet weight of moss-peat material. The low moss-peat treatment was scaled to the ratio of water volume to flooded area of Notigi Reservoir and the flooding of a moss-peat layer of mean thickness of 5 cm. Notigi Reservoir recorded the highest fish mercury concentrations of any lake in the Churchill River Diversion area (Bodaly et al. 1984a). The moss-peat was grubbed by hand and added as a single addition prior to the addition of fish and radioisotope spikes. Most of the material sank soon after addition; however a portion would generally float for up to a week before sinking.

Sediment treatments in 1981 and 1982 used varved, extremely fine-grained, glaciolacustrine clays from erosion site 5 of Newbury and McCullough (1984). In 1983 lake sediment from a nearby lake station, LBN of Planas and Hecky (1984), was used. The bank material or lake sediment was collected by shovel or Ekman dredge as appropriate and placed in large plastic trash cans. Water from the limnocorral to be treated was added to the plastic can with a plastic vaned submersible pump. After agitation to bring the clay material into suspension, the water was pumped back into the limnocorral and dispersed in the prop wash of an electric outboard motor. Turbid water was thus added until a predetermined Secchi disc value was reached in the limnocorral (0.3 and 0.5 m for high and low treatments in 1981, 0.35 m in 1982 and 0.5 m in 1983). At the end of the experiment the residual clay in the trash can was recovered, dried and weighed to calculate the total material added (Table 2).

In 1981 inorganic nutrients, $NaNO_3$ and $NaH_2PO_4 \cdot 2H_2O$ were added in order to stimulate algal growth and primary productivity. Three to four grams of $NaH_2PO_4 \cdot 2H_2O$ were added biweekly from June 21 to August 21. Twenty-five grams of $NaNO_3$ were added on June 21 and July 15 only. The nutrient salts were dissolved in 400 mL double distilled water then mixed into the limnocorral in the prop wash of an electric outboard motor.

In 1982 a limnocorral was installed over terrain which was flooded when Southern Indian Lake was impounded in 1976. This limnocorral was reused in 1983. The site was selected from pre-impoundment aerial photographs which indicated a low-lying boggy area. The presence of moss-peat material as well as a high proportion of grass and sedge was confirmed by SCUBA diver prior to installation. In 1982 the surface of this flooded terrain was not disturbed after installation. In 1983, prior to the radioisotope spike, the surface was purposely disrupted by SCUBA divers using their hands and mechanical aids to expose underlying materials.

In 1984 the spruce and sod treatments were scaled on the flooded area to volume ratio of Notigi Reservoir. Sod was from an abandoned farm field on the Canadian Department of Agriculture station at Glenlea, Manitoba. A motor driven sod cutter was used to produce uniform pieces approximately 30 cm x 60 cm x 5 cm. The treatment was made on an areal basis, but no attempt was made to insure that sod was oriented grass side up. The weight of spruce boughs (less than 2 cm in diameter) to be added was based on vegetation surveys conducted around Wupaw Bay in 1976 (J.H. Shay, University of Manitoba, Winnipeg, MB, unpublished data) which estimated biomass of spruce components per square meter of land.

The carbon, nitrogen, phosphorus and total mercury concentrations were determined on all added materials. After determination of water content by weight loss at 105 C, subsamples were ground with either mortar and pestle or a mechanical ball mill. The total C, total N, total P and carbonate content of the treatment materials were determined by the methods of Stainton et al. (1977). Digestion of sediment and soil for total Hg was carried out following the aqua regia procedure of Dow Chemical Co. of Canada Ltd. (Method CAS-AM-70.13). The mercury concentration was determined by the atomic absorption spectrophotometric method of Armstrong and Uthe (1971). To determine the total amount of these elements added to the limnocorrals the concentration per unit dry weight was multiplied by the calculated dry weight of material added.

FISH ADDITIONS

Before the addition of experimental fish, fish trapped incidentally during installation were removed by fishing with an 18 m seine net, variable mesh gill nets, minnow traps and by electroshocking. Despite these removal efforts, some non-stocked fish, generally young of small species, were recovered in every year at the end of the experiments. Limnocorrals were then stocked with fish seined from nearby areas in Wupaw Bay. Stocking densities per enclosure were nominally as follows: 110 perch and 30 emerald shiners in 1981, 80 perch in 1982, 32 perch in 1983 and 100 perch in 1984 (Table 3). In 1981, fish were were held briefly in pens for one to two days before the limnocorrals were stocked, whereas in 1982-84 fish were added immediately after transport from seining areas. Yellow perch of the same age class (1+) were used in experiment in all years except 1983, when perch of the 1+ class were difficult to find in Wupaw Bay and 2+ were initially stocked. Also, 60 age 0+ perch were added in 1983 (Table 3) on August 5. In 1981 only, 2+ emerald shiners were also stocked.

A sample of the fish introduced to the limnocorrals, the "time zero" sample, was removed during stocking. Fish were sampled at two week intervals using the 18 m seine net, minnow traps or an electroshocker as required. In 1983 sampling was less frequent due to lower initial population in the enclosures. Larger, more frequent samples were taken in 1984 when initial populations were high and survivorship was good. For the final sample each year, rotenone was added to the limnocorrals and all remaining fish were dipnetted from the surface.

All fish sampled were placed immediately on ice. At the South Indian Lake research station, fish were individually wrapped and frozen. Table 3 summarizes the fish stocked to each limnocorral, the numbers of stocked fish recovered over the experiment and the total (including extraneous fish) recovered. Fish growth in each year is summarized in Table 4.

RADIOISOTOPE ADDITION

In 1981 a cocktail consisting of radioisotopes of four metals in addition to ^{203}Hg was added to each limnocorral (Tables 5 and 6). The radioisotopes ^{203}Hg, ^{134}Cs, ^{65}Zn and ^{60}Co were added as their chloride salts while ^{75}Se was added as seleneous acid. These compounds in 5 mL of 0.5 M HCl solution were added directly to the limnocorrals from their containing glass vial. In addition in 1981 a radioisotope of Na was added to one of the limnocorrals (Table 6). In all other years only radiomercury was added to limnocorrals. In all years tritiated water was added to check for leakage and to estimate volumes. Table 5 gives details on the activity of each mercury spike, the specific activity of the spike and the nominal concentration of the radioisotope immediately after the spike (calculated using the volume estimates from Table 1). From the specific activity of the spike, the nominal amount of total mercury added with the spike and its initial concentration can also be determined. The spike addition was made directly into the prop wash of an electric trolling motor to insure rapid dispersal.

FIELD OBSERVATIONS AND COLLECTIONS

The limnocorrals and the bay in which they were situated were monitored weekly or biweekly. Temperature and conductivity profiles were made with a Montedoro-Whitney CTU-3B thermistor and conductivity cell in 1981 and 1982. In 1983 and 1984 these measurements were made with a Hydrolab 4041 Water Quality Monitor which also was used to measure profiles of dissolved oxygen. Secchi disc readings were made with a 25 cm disc divided into black and white quadrants. Results are in Appendix 1.

Water for radioisotope and chemical analyses was collected from the limnocorrals and the bay directly into a weighted, opaque two liter polypropylene bottle which integrated between the water surface and 2.5 m or to a depth 20 cm above the bottom in shallower limnocorrals. The bottle was fitted with a two hole stopper into which two different lengths of stiff polyethylene tubing, one extending to the bottom of the bottle and the other to the end of the stopper, were inserted. The difference in length above the stopper between the intake (shorter) and air outlet (longer) controlled the effective head pressure and rate of filling. The sample bottles were placed in an insulated cooler for transport to the South Indian Lake research station for processing. To collect zooplankton for radioisotope analysis, a 25 L Schindler-Patalas plankton trap with a 85 µm mesh net was used at 0.5, 1.5, and 2.5 m depths and the samples were pooled into a glass jar. The samples were stored on ice until further processing at the South Indian Lake research station.

RADIOISOTOPE COUNTING

Water

In 1981 water samples were routinely fractionated to examine speciation of the radioisotopes (Hesslein et al. 1980; Rudd et al. 1980), and all samples were counted at the Freshwater Institute on a lithium drifted germanium (GeLi) crystal detector mated to a 4000 channel spectral analyzer. Hesslein et al. (1980) describe the system in detail. The water samples were fractionated by passing 500 mL sequentially through a 200 µm prefilter (not retained), a pre-weighed Whatman GFC filter (which was frozen until counted), a pre-weighed 0.45 µm cellulose acetate membrane filter (frozen until counted), a column of cation resin (Dowex AG 50w-x12 100-200 mesh). The eluant was then digested with sulfuric acid and potassium persulfate (Hesslein et al. 1980) and any residual mercury precipitated as HgS. The charcoal, the sulfide precipitate, and the resins were subsequently collected on filter paper and stored in small plastic petri dishes until counted. The results are given in Appendix 2.

In 1982, 1983 and 1984 when only the radioisotope of mercury was added all counting of water was done at South Indian Lake research station on a Packard 3033 Liquid Scintillation Counter (LSC) with automatic external standardization. Fractionation was simplified in these later years. Only 100 mL of sample water was passed through a 0.45 µm membrane filter. The filter, 10 mL of the filtrate and 10 mL of unfiltered water were each counted in PCS (Amersham-Searle) scintillation fluor. The ^{203}Hg results for 1981 to 1984 are in Tables A2.1 to A2.4. The results for the other isotopes added in 1981 are in Tables A2.6 to A2.13. In 1981 only, the net plankton was filtered onto a pre-weighed glass fiber filter, dried at 60°C and counted on the GeLi gamma detector system. In 1982 and 1983 netplankton was collected as in the previous year, filtered onto pre-weighed 0.45 membrane filters, dried at 60°C, reweighed and then counted on the LSC in PCS. All samples were counted in the gel state. When necessary, distilled water was added to the sample to insure that all samples were counted at the same water to fluor ratio and similar counting efficiencies. Net plankton results are in Appendix 4 (Tables A4.1 to A4.7). In 1983 a small number of adult insects caught in emergence traps were dried, weighed and counted on the GeLi system (Appendix 4, Table A4.8). In all years, water samples were counted for tritium content using the LSC and PCS as a fluor. Tritium results are in Appendix 2 (Tables A2.5-A2.8).

Fish

Fish were weighed, measured for total length and most were filleted for the muscle mass while frozen. Muscle mass (less skin) and carcass (remainder of fish) for each fish were analyzed for ^{203}Hg concentration on the GeLi gamma detector. In 1981 only, fish sampled after two weeks and four weeks were analyzed as whole fish less the gut. After ^{203}Hg analysis, muscle samples were analyzed for total mercury. In 1982, six samples from each of two limnocorrals (C82-6 and LM82-3) were dissected for several tissues (muscle, skin, liver, gut, gill and remaining carcass) and the tissues were counted separately on the GeLi detector (Appendix 3, Table A3.31). Stomach contents of these 12 fish were identified and counted. On subsamples of the fish collected from the limnocorrals in 1981, methyl mercury extractions (Uthe et al. 1972) were analyzed to determine the proportion of ^{203}Hg in muscle that was in the methyl form. These samples were counted on a liquid scintillation counter at the Freshwater Institute. Efficiency and decay corrected counts were then compared to dpm/g in the same fish's whole muscle as assayed by the GeLi gamma detector and spectrometer.

Periphyton and sediment

In 1981 four strips (2 cm wide extending to a depth of 2.5 m) of limnocorral wall material were hung at the four compass points within each limnocorral. On August 26 these strips were carefully removed into buckets of lake water and transported to the research station. Ten centimeter lengths were removed from the following depth intervals: 10 cm above the water line to the water line, from the water line to 10 cm below the water line, 50-60 cm, 90-100 cm, 130-140 cm and 170-180 cm. Two strips from the same depth interval but opposite sides of the limnocorral were placed in a plastic petri dish and frozen until counted at the Freshwater Institute on the GeLi detector. Results are in Appendix 4 (Tables A4.9 and A4.10).

In 1981 and 1982 7.5 cm diameter sediment cores were taken with a 3 m plexiglass tube. These cores were sectioned at one centimeter intervals to a depth of 15 cm. The sections were stored in polyethylene bags at 4°C. The sediment sections were transferred quantitatively to aluminum weighing dishes, dried and weighed to determine water content. The dried sediment was then placed in a plastic petri dish for counting on the GeLi detector. Results are in Appendix 4 (Tables A4.11 and A4.12).

TOTAL MERCURY ANALYSES

Total mercury in fish muscle was determined by the atomic absorption spectrophotometry method of Armstrong and Uthe (1971). Water samples for total mercury analysis were taken with a van Dorn sampler and transported to the Freshwater Institute in 300 mL reagent bottles. Sample preservation, extraction and analysis followed closely the procedure of Kopp et al. (1972).

WATER CHEMISTRY

In 1981, ammonia, nitrate, nitrite, soluble reactive phosphate, total dissolved oxygen, oxygen demand, dissolved inorganic carbon, conductivity and pH were done at the South Indian Lake research station using the methods of Stainton et al. (1977). A series of absorbance readings were also made on untreated, filtered (Whatman GFC), and centrifuged (13,000 G) water on a Bausch and Lomb Spectronic 70 spectrophotometer using a 10 cm light path cell at 543 nm and at 455 nm (centrifuged only). All other chemical analyses in Appendix 5 were done by the Analytical Unit of the Freshwater Institute in Winnipeg using the methods of Stainton et al. (1977). In subsequent years, only the oxygen, dissolved inorganic carbon, conductivity, absorbance and pH measurements were made at the South Indian Lake station while all other reported analyses were done at the Freshwater Institute.

RESULTS AND DISCUSSION

All data pertinent to the limnocorral experiments are given in the appendices to this report. Major results of each year's experiments which influenced the evolution of our understanding of the mercury problem will be emphasized in this section. As each year of experimentation built on the previous years results, the experiments will be presented in chronological order.

1981

The 1981 experiments were designed to examine the effects on mercury accumulation in fish of the major water quality changes that had taken place due to the impoundment of Southern Indian Lake (SIL) and Notigi Reservoir. Extensive flooding of the organic soils common in northern Manitoba occurred in both reservoirs. The predominant ground cover is *Sphagnum* spp. and feather mosses (primarily *Hylocomium* spp.) and the decomposition products of this moss community, i.e. peat. A moss-peat treatment for limnocorrals was designed based on the ratio of flooded moss-peat mass to reservoir volume of Notigi Reservoir (Newbury et al. 1984). A major water quality change which occurred in SIL, but not in Notigi, was a substantial increase in total suspended solids which originated from the erosion of fine-grained shorelines (Hecky and McCullough 1984). Two limnocorrals were treated with suspended sediment additions at two different rates, termed high (HS) and low (LS). The remaining treatment in 1981 was a nutrient addition which was intended to double the pre-impoundment phosphorus loading rate of SIL which was 0.35 g P $m^{-2} \cdot y^{-1}$ (Hecky 1975) in order to boost algal production to levels observed in Notigi Reservoir (Bodaly et al. 1984b). Three control limnocorrals (i.e. received no treatment other than the radioisotope spike) were established, two with sewn in plastic bottoms and one with the natural sediment (silty-clay) bottom which was the appropriate control for the moss-peat addition.

There was no significant difference among limnocorrals in growth of yellow perch or emerald shiners (Table 4). However, mortality from unknown causes, i.e. non-sampling, was fairly high, ranging from 50-82% over the course of the experiment (Table 3). The lowest mortality for yellow perch, 59%, occurred in the moss-peat treatment while the highest, 82%, for both yellow perch and emerald shiners, occurred in the nutrient addition treatment. Consequently, the numbers of fish available for analysis at the end of the experiments were limited. However, introduced fish, either yellow perch or emerald shiners or both, were recovered from all limnocorrals at the termination of the experiment. In some cases substantial numbers of extraneous fish were also recovered after the rotenone treatment (Table 4) and these fish were also analyzed for their ^{203}Hg content. The analyses for ^{203}Hg and total Hg for all stocked fish are given in Appendix 3.

The moss-peat treatment (LM81-2) gave the highest accumulation of ^{203}Hg in whole yellow perch and yellow perch muscle while the natural sediment bottom gave the lowest (Fig. 1). Although yellow perch did not survive until the end of the experiment in all limnocorrals, emerald shiners which were only analysed at the end of the experiment were available from all the limnocorrals. The shiners had essentially similar activities of ^{203}Hg as the perch in limnocorrals in which both species survived (Table 7). Using the data for both the perch and shiners together, it is clear that the moss-peat treatment increased accumulation of ^{203}Hg in fish nearly 40x relative to its natural sediment control (C81-1). The fish in plastic bottom controls had ^{203}Hg accumulations in muscle similar to or higher than the natural sediment control. Among the treatments in plastic bottom limnocorrals, fish receiving the nutrient addition and high sediment treatments were similar to their controls while the low sediment treatment was nearly double the highest of the two controls. Clearly the sediment treatments did not give a simple linear response with sediment concentration. The similarity in the perch and shiner results extended also to the extraneous fish caught in the limnocorrals (Table 7) indicating that the results of the experiment were not species dependent.

It is generally found that a high proportion of the Hg found in fish muscle is methyl mercury as this compound is tightly bound to sufhydryl groups in proteins. This assumption was tested for fish sampled from limnocorrals by extracting methyl mercury from muscle tissue which had been previously assayed for its ^{203}Hg content. The extract was then analyzed for ^{203}Hg content and compared with the total ^{203}Hg. These comparisons were made on the last two sampling dates for yellow perch and on the last sampling date for the shiners. Methyl mercury accounted for essentially all the mercury in the muscle of these species at the end of the experiment except in the two plastic bottom controls (Table 8). There was an indication that the proportion of methyl ^{203}Hg to total ^{203}Hg in muscle increased over time based on the two dates available for yellow perch, but the apparent change over time may be within the variance of the analyses. It can be conclusively stated however, that the difference between the ^{203}Hg content of fish muscle in the moss-peat treatment and the other treatments is due to methyl mercury.

The increases in ^{203}Hg content in fish over time which all the limnocorrals exhibited do not necessarily mean that total mercury concentrations have similarly increased. The ^{203}Hg isotope of mercury does not occur naturally so the ^{203}Hg content of all the fish at the start of the experiment is zero, and the content of ^{203}Hg must increase over time as the mercury within the fish approaches equilibrium with the ^{203}Hg source. Because of the small numbers of yellow perch left in the limnocorrals and the consumptive requirement for the methyl mercury analyses discussed above, the final total mercury, i.e. radioactive and cold mercury, can only be assessed for two limnocorrals in 1981, the moss-peat treatment and one of the plastic bottomed controls. Muscle mercury content for these fish are compared to the time-zero muscle mercury concentrations in Table 9. Fish from the moss-peat limnocorrals had their muscle mercury concentration increase by 5x over the course of the experiment while the mercury in fish from the control limnocorral declined. In both cases the specific activities (dpm ^{203}Hg per mg total Hg) of fish muscle were not substantially different between the last two sampling dates within each limnocorral indicating that equilibrium between ^{203}Hg and natural mercury may have been reached. If equilibrium was reached, then substantial amounts of natural mercury were available to the fish in both cases as the specific activity of the fish is well below that of the radioisotope spike (Tables 5 and 9) indicating dilution by "cold" (non-radioactive) mercury in each case. However, the data from 1981 alone are too fragmentary to make a firm conclusion about the relative availability of natural mercury. For example, given the evidence that there was no change in the total mercury in fish muscle in the control, it is as plausible that ^{203}Hg labelling of the muscle mercury pool was extremely slow, so slow that the differences in the last two sampling periods were statistically indistinguishable. If this were the case, then no conclusion about natural mercury availability can be reached based on the 1981 data alone.

In 1981 a great deal of effort was expended examining the speciation of ^{203}Hg within the water column. For example the activity in the dissolved form was operationally split into cation, anion, organic and undetermined forms (Appendix 2). Also the fractionation of particulate ^{203}Hg was similarly operationally defined by particle size (Appendix 2). The moss-peat treated limnocorral was not unusual in any of these aspects compared to the other limnocorrals. It must be recognized that none measure methyl mercury which may be only a small of these operational parameters specifically measure methyl mercury which may be only a small component of the ^{203}Hg in any of the fractions. As this is the only mercury compound which accumulates in fish muscle, the lack of simple correlation with total mercury in these different fractions is not surprising. Consequently, the fractionation analyses were largely discontinued in subsequent years.

1982

The 1982 experiments had three major hypotheses: 1) the moss-peat effect was dose-dependent, i.e. more moss-peat would yield higher mercury uptake, 2) the effect of moss-peat material would attenuate with time, and 3) high suspended sediment concentrations would increase mercury uptake. The dose effect was investigated by adding moss-peat material at two different rates, the LM treatment of 1981 and double the LM treatment (high moss-peat, HM). The effect of time on the moss-peat effect was assessed by using the 1981 moss-peat material and limnocorral again and by installing a limnocorral over a bed of moss-peat material originally flooded in 1976. The effect of suspended sediments was tested in a limnocorral with a natural sediment bottom (cf. plastic bottoms in 1981) at a rate of suspended sediment addition comparable to the high rate of 1981. Details of the 1982 treatments are given in Table 2.

The moss-peat treatments did give an approximately proportional response in fish muscle mercury concentration. At the end of the experiment the mean total mercury concentration in fish in the LM treatment was 0.026 $\mu g \cdot g^{-1}$ higher than the controls while the HM treatment was 0.053 $\mu g \cdot g^{-1}$ higher, i.e. a doubling in response (Fig. 3). The difference in the ^{203}Hg response was less dramatic (Fig. 4) indicating a greater dilution of the radioisotope spike by natural mercury in the HM treatment. Comparing the specific activities of the LM and HM to the specific activity of the radioisotope spike indicates that at the end of the experiment about 1.7x as much natural mercury had been incorporated into fish muscle in the HM treatment as in the LM treatment. This indicates that the availability of natural mercury was also nearly proportional to the mass of the moss treatment. However, because the specific activities of the mercury in fish muscle had not obviously reached a plateau value which would indicate equilibration with available ^{203}Hg (Fig. 5), no definitive statement can be made about the exact proportion of natural mercury mobilized in the treatments.

The results of the time course experiment indicated that after one year of immersion (the moss-peat originally added in 1981) the moss-peat material still had a positive effect on bioaccumulation of mercury in fish muscle. This one year old material mobilized substantially more total Hg than any other treatment in 1982 (Fig. 3). However, the mobilization of ^{203}Hg was less than the new moss-peat treatments (Fig. 4) indicating that most of the mercury mobilized did not arise from the mercury added in the 1982 radioisotope spike. Possible sources of this non-spike mercury were the degradation of the moss-peat material, natural sediment mercury and/or residual mercury added in the 1981 spike. The most appropriate control for this limnocorral was OC82-5 which had also served as a control in 1981. This limnocorral, like OM82-8, received a radioisotope spike in 1981 as well as in 1982. However, OC82-5 was indistinguishable from the newly established control C82-6 in bioaccumulation of ^{203}Hg or total Hg, and this suggests that the one year old moss-peat was significant as a source of mercury as well as stimulating methylation of the available mercury. The specific activity of the mercury in fish muscle in OC82-5 apparently plateaued or possibly began to decline by the end of the experiment (Fig. 5) indicating that equilibration with mercury sources was achieved in this case. Comparing the maximum specific activity with that of the spike shows that 95% of the mercury mobilized into fish muscle was not added with the 1982 spike. In contrast with the one year old moss-peat material (OM82-8), the flooded land surface which had been submerged for six years (FM82-1) did not stimulate bioaccumulation of either ^{203}Hg or total Hg. Unfortunately, conclusions about the effect of length of submersion were called into question by the 1983 experiments which indicated that it is difficult to compare results in a new limnocorral with a reused limnocorral.

The high suspended sediment treatment which was added to a limnocorral (HS82-7) with a natural sediment bottom in 1982 increased bioaccumulation of ^{203}Hg and total Hg (Fig. 3 and 4). The total Hg concentration in fish muscle at the end of the experiment was comparable to that of the high moss-peat treatment (HM82-4) although the ^{203}Hg uptake was only about one-half (relative to controls) that of HM82-4. The specific activity of the fish muscle mercury peaked in mid-August (Fig. 5) and at its maximum it was only 16% of the specific activity of the spike. The addition of suspended sediments both stimulated methylation relative to controls and increased the availability of natural mercury in the limnocorral.

1983

The 1983 set of limnocorral experiments was intended to examine the recovery of previously treated limnocorrals and a possible mitigation treatment. In addition, the replicability of a treatment, as opposed to controls, was determined and the effect of another organic material (spruce boughs) was to be investigated. The treatments are given in Table 2.

A number of problems occurred in 1983 which weaken the interpretation of results. Firstly, 1+ yellow perch were not caught in Wupaw Bay. Consequently, stocking densities were much lower than in previous years, and 2+ and 0+ perch were added to the limnocorrals. As the 2+ perch were more comparable to the size of fish used in other years, only the results for those fish are presented here. To insure that there would be fish recovered at the end of the experiment, fish were only sampled three times over the summer. In fact, survivorship was good and adequate samples were recovered from all limnocorrals (with one exception discussed below). The second departure from previous years' experiments was the high proportion of limnocorrals which were reused, i.e originally used in 1982 or 1981 in the case of the old moss-peat treatment. These reused limnocorrals had thereby received at least two spikes of mercury attendant with radioisotope addition (Table 2). Methylation/demethylation assays performed in the limnocorrals in 1982 and 1983 (Ramlal et al. 1987) indicated that the microbial communities of these reused limnocorrals differed from new limnocorrals in their predilection towards net methylation of mercury. This makes it impossible to compare new and reused limnocorrals because multiple radioisotope spikes eventually create mercury contaminated systems. The third problem was that the spruce treatment went anoxic and all the fish were killed; therefore no conclusion could be reached concerning the effect of this treatment on mercury net methylation and accumulation in fish.

The 1983 experiments did establish that the variance in treatment limnocorrals as well as controls, which had been run in pairs in previous years, was low (Fig. 6 and 7). The mean ^{203}Hg activity in fish at the end of the experiments in limnocorral LM83-3 was 124,500 dpm$\cdot$g^{-1} while it was 125,400 dpm$\cdot$g^{-1} in LM83-7; there was more variance in total mercury, 0.16 μg$\cdot$g^{-1} compared to 0.13 μg$\cdot$g^{-1}.

The two new moss treatments can be considered as controls for the sediment-moss treatment LMS83-8. This treatment was meant to explore the mitigatory effect of resuspending lake (as opposed to bank) sediment on mercury bioaccumulation. Rudd and Turner (1983) concluded that sediment suspension and subsquent deposition could ameliorate the fish mercury problem in Clay Lake, Ontario. As our 1982 experiments had already demonstrated that suspension and deposition of bank sediment enhanced mercury bioaccumulation, we decided to use offshore sediments from Long Bay to determine if they would have an ameliorative effect over flooded moss. In fact, the suspension and deposition of lake sediments enhanced the bioaccumulation of ^{203}Hg (Fig. 6) and had a negligible effect (or slightly enhanced) on total mercury in fish muscle (Fig. 7). The higher specific activity (Fig. 8) of the Hg in fish muscle in LMS83-8 as compared to LM83-3 and LM83-7 indicates that the sediment suspension made more of the mercury from the spike available for methylation while it may have reduced the input of natural mercury from the moss-peat material and bottom sediments of the limnocorral. The addition of lake sediments in suspension may have partially shifted the locus of methylation from the bottom materials toward the water column, but it did not reduce the bioaccumulation of mercury over the period of the experiment.

1984

The 1984 experiments compared effects of three different organic substrates, moss-peat, spruce boughs (at a reduced dose from 1983) and prairie sod. Also the effect of spike mercury concentration was examined by tripling the amount of mercury added with the radioisotope spike. In addition, two limnocorrals,one receiving a low moss-peat dose and one control did not receive any radioisotope spike or added mercury in any form. This pair of limnocorrals was to determine if the addition of ionic mercury was a causative agent of enhanced bioaccumulation in former experiments. Details of the limnocorral treatments are given in Table 2. The experiments started in the first week of July as in all other years, but fish sampling was more frequent and extended until the end of September. Fish survivorship was excellent in all limnocorrals, but fish growth was significantly better in the prairie sod treated limncorral (Fig. 9).

In the limnocorrals which received no mercury addition (LMN84-1 and CN84-2), the moss-peat treatment enhanced mercury accumulation in fish by a factor of 1.7 (Fig. 10). In the moss-peat treatment which received a mercury addition (LM84-5), the total mercury concentration in fish muscle at the end of the experiment was higher with an enhancement factor of 2.4 over CN84-2. However, up to the end of August there was little difference between the moss-peat treatments with and without a mercury spike indicating that the added mercury was not required to cause the response in fish muscle mercury, although it may have prolonged the period of uptake.

The addition of extra mercury with the radioisotope spike did not have any effect on total mercury uptake by fish muscle until the last sampling period (Fig. 10). It did reduce the specific activity of the Hg taken up indicating that the extra mercury was available to the methylating bacteria (Fig. 11). In the first season of use, the limnocorral responses appear to be independent of the mercury added with the spike. However, the increased uptake in the limnocorral with the high dose of ionic mercury on the last sampling date suggests that time may be a factor in the effect as Ramlal et al. (1987) concluded when they observed that reused limnocorrals had higher rates of methylation than new ones regardless of treatment.

The three organic substrates used in 1984 all caused greater bioaccumulation of mercury in fish muscle relative to controls (Fig. 10). Total mercury concentration was substantially higher in the LM84-5 and S84-3 than in the prairie sod treatment SD84-4, but this difference may have been caused by the much higher fish growth rates in the sod treatment which would tend to dilute the mercury taken up. Regardless, the conclusion would be that materials of the boreal forest are efficient substrates for mercury bioaccumulation in fish muscle. The sod result suggests that regions with different vegetation may differ in degree from boreal forest reservoirs, but the qualitative effect on fish mercury is likely to be universal, i.e. all flooded soils and vegetation will stimulate mercury methylation by bacteria and enhance bioaccumulation of Hg. The specific activity of the Hg in fish muscle rose in all three treatments and apparently reached a plateau suggesting equilibration between the added ionic mercury and other mercury sources available for methylation and accumulation in fish. The added substrates differed significantly in their effect on the contribution of natural mercury to fish muscle. The sod and spruce treatments mobilized 83-86% of the mercury accumulated in fish muscle from natural sources (only 14-17% of the mercury in fish was derived from the spike) while the moss-peat treatment mobilized 93% of the mercury from natural sources. Twice as much natural mercury was mobilized by the moss-peat treatment compared to sod and spruce. Therefore, although all three substrates caused net methylation and bioaccumulation of mercury, the moss-peat material was more effective in mobilizing natural mercury than the other treatments. In all the controls, the amount of natural mercury available substantially diluted the spike (e.g. Table 9), indicating that much of the mercury was coming from the lake sediments within the limnocorrals. These same sediments underlaid all the limnocorrals. Clearly the primary effect of the added materials was to disturb the methylation/demethylation balance occuring within the limnocorrals. The effect of the materials or the radioisotope spike on the total mercury available for cycling through the methyl mercury pool was minor.

ANNUAL VARIABILITY

Moss-peat limnocorrals were run in every year and new control limnocorrals were run in three years. When these are compared (Fig. 12 and 13), it is clear that mercury uptake by fish in the control limnocorrals was generally consistent from year-to-year especially in terms of radioisotope uptake. In the moss-peat treatment, three of the four years were quite similar in both radioisotope uptake and total Hg uptake into fish. The 1981 moss-peat limnocorral had by far the most dramatic response of all treatments in all years. Efforts were made to run the experiments in a very similar fashion, i.e. similar timing, similar treatments, similar radioisotope spikes in all years, etc. and it seems unlikely that the 1981 extreme can be accounted for by experimental technique. Rather, limnological conditions which did vary from year-to-year in the bay likely played a modifying role in mercury bioaccumulation (Table 10). We did not conduct any experiments to specifically address what factors may be significant, and further research in this direction would be warranted to improve our ability to predict the effect of reservoir conditions on fish mercury concentrations.

ACKNOWLEDGMENTS

Funding for these experiments was provided by the Department of Fisheries and Oceans and the Canada-Manitoba Mercury Agreement. The study design and choices of hypotheses to be tested were strongly influenced through numerous conversations with J.W.M. Rudd, M.A. Turner, K. Patalas, R.H. Hesslein and P. Campbell. R.H. Hesslein provided access to the gamma spectrometer and supervised the counting of material on it. Paul Wilkinson, assisted by Paul Campbell, performed the radioisotope spikes in 1981, 1982 and 1983. We would like to thank A. Lutz and R. Hunt of the Freshwater Institute Heavy Metals Laboratory for performing the mercury analyses. The Analytical Unit of the Freshwater Institute performed all the major ion and particulate analyses as well as many of the nutrient analyses. Aspects of the study were conducted by Agassiz North Consultants under DSS contracts OSF82-00027 and OSF83-0004.

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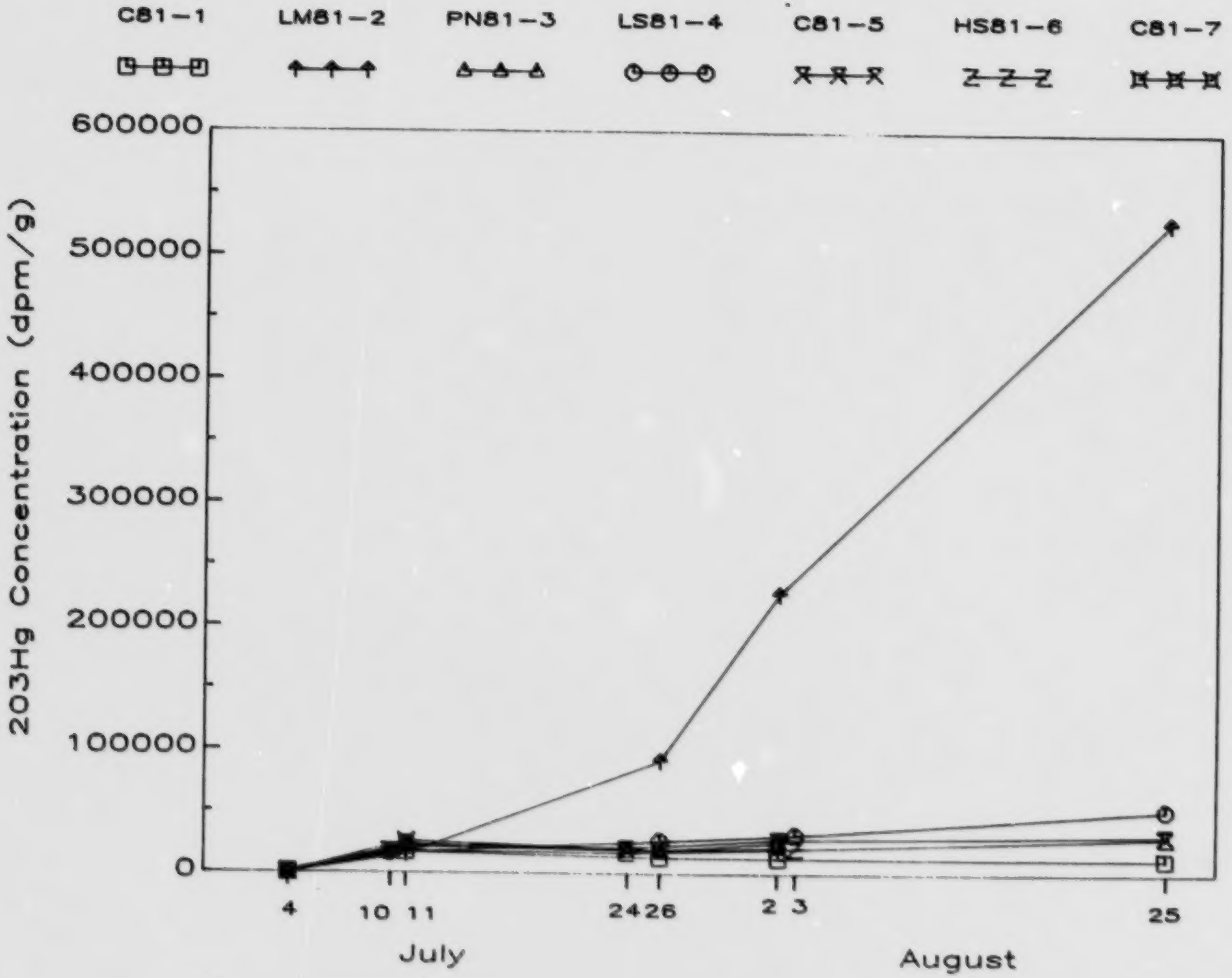

Fig. 1. Concentration of ^{203}Hg in combined yellow perch muscle and carcass, 1981.

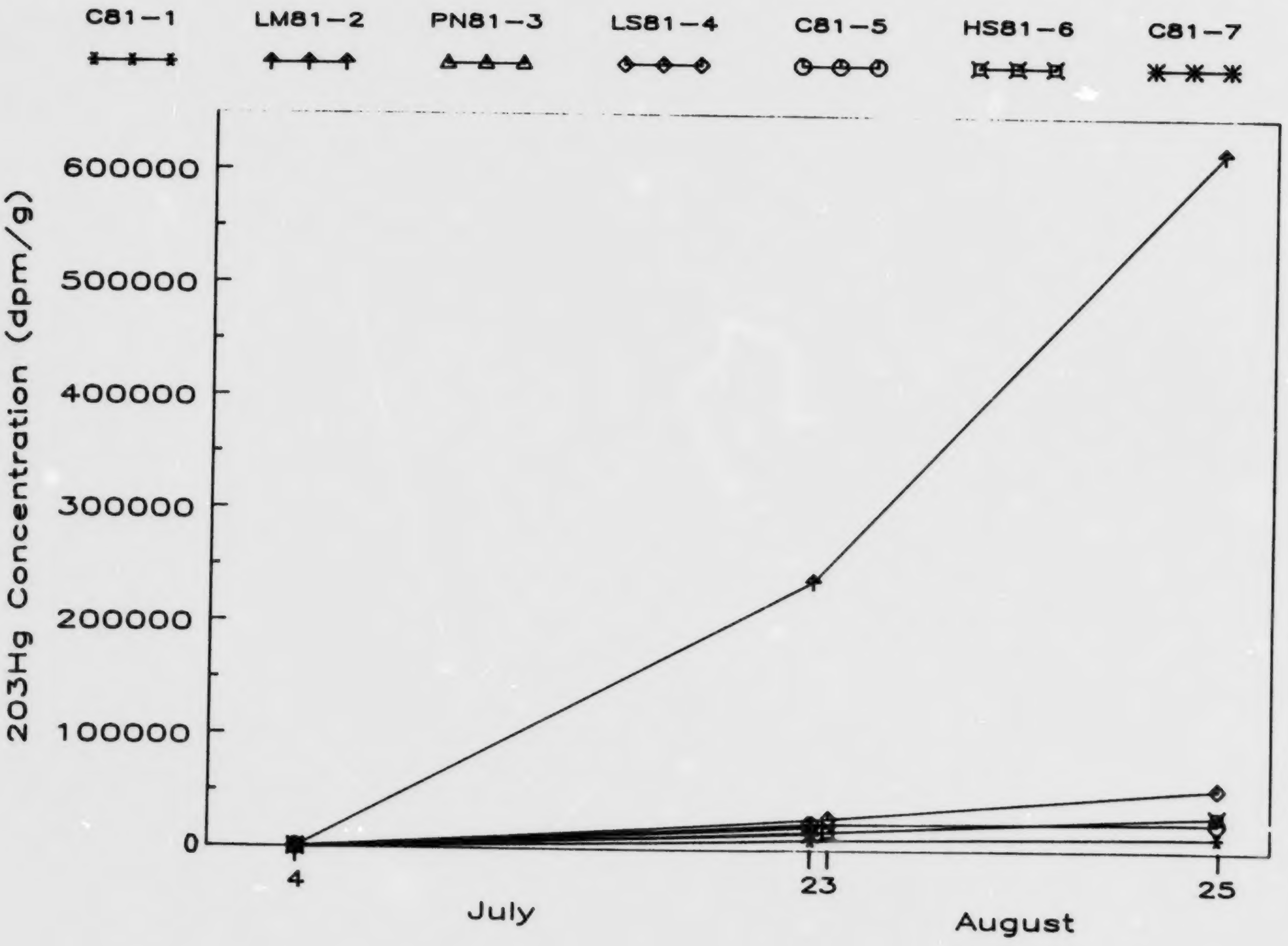

Fig. 2. Concentration of ^{203}Hg in yellow perch muscle, 1981.

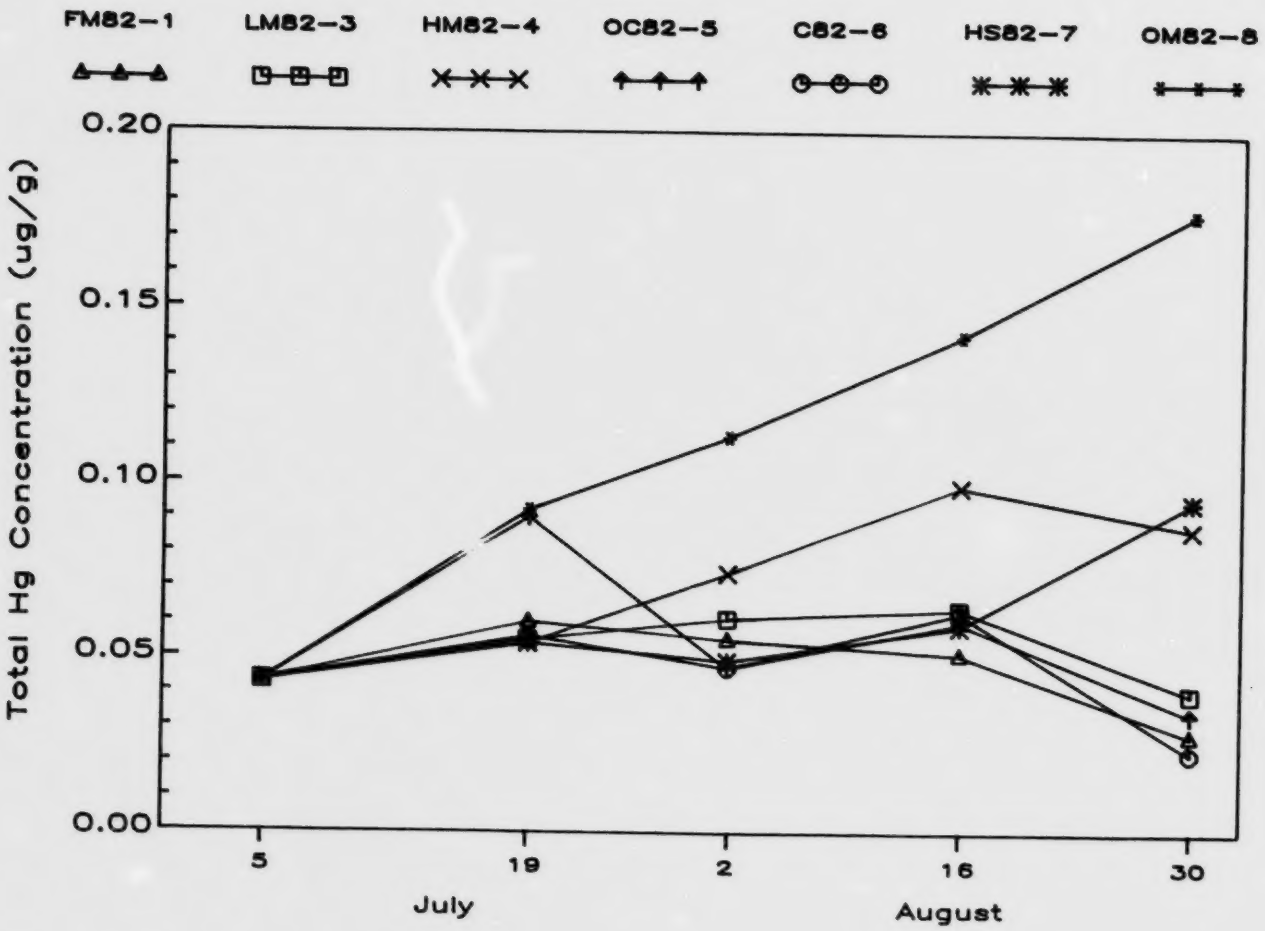

Fig. 3. Concentration of total Hg in yellow perch muscle in 1982.

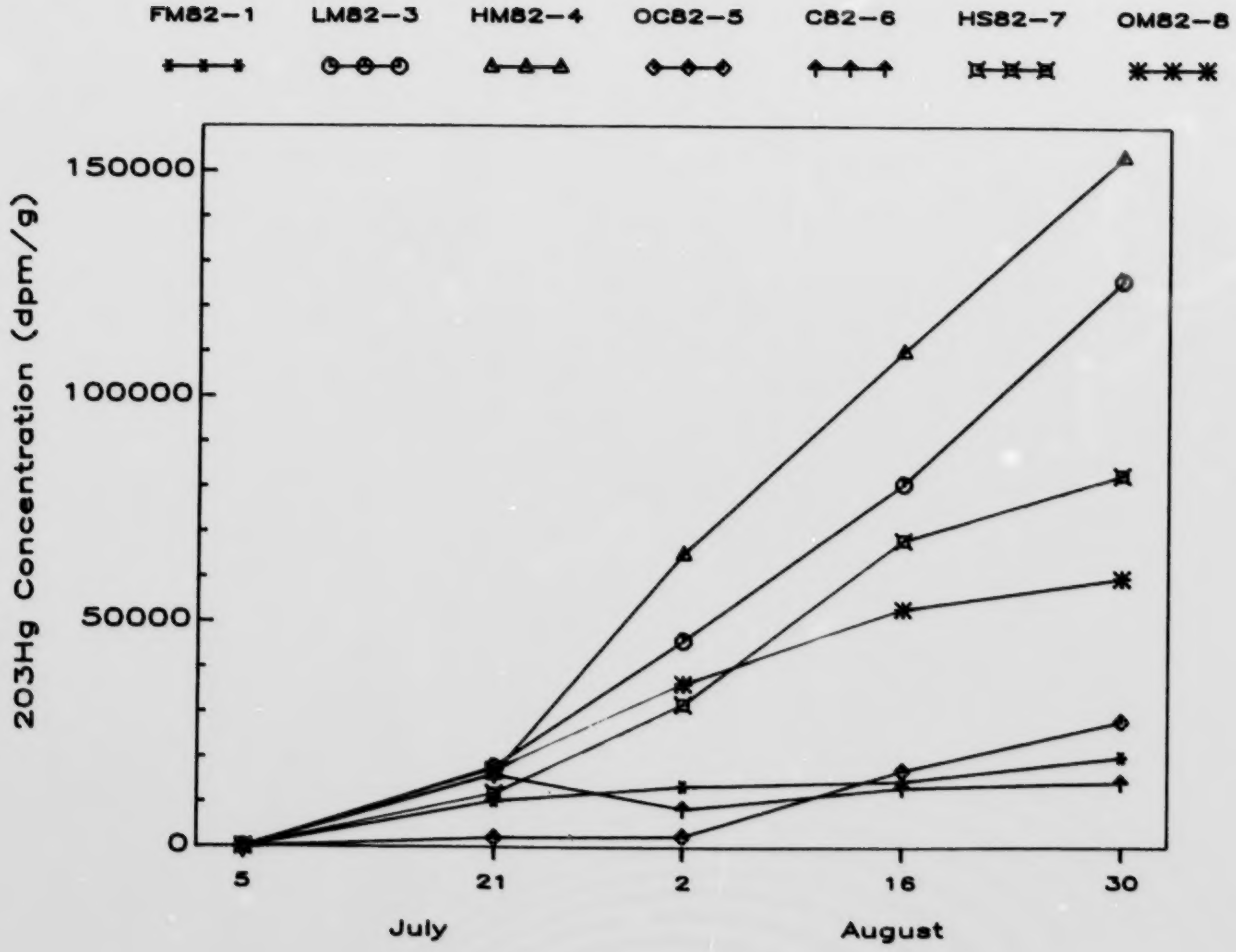

Fig. 4. Concentration of ^{203}Hg in yellow perch muscle in 1982.

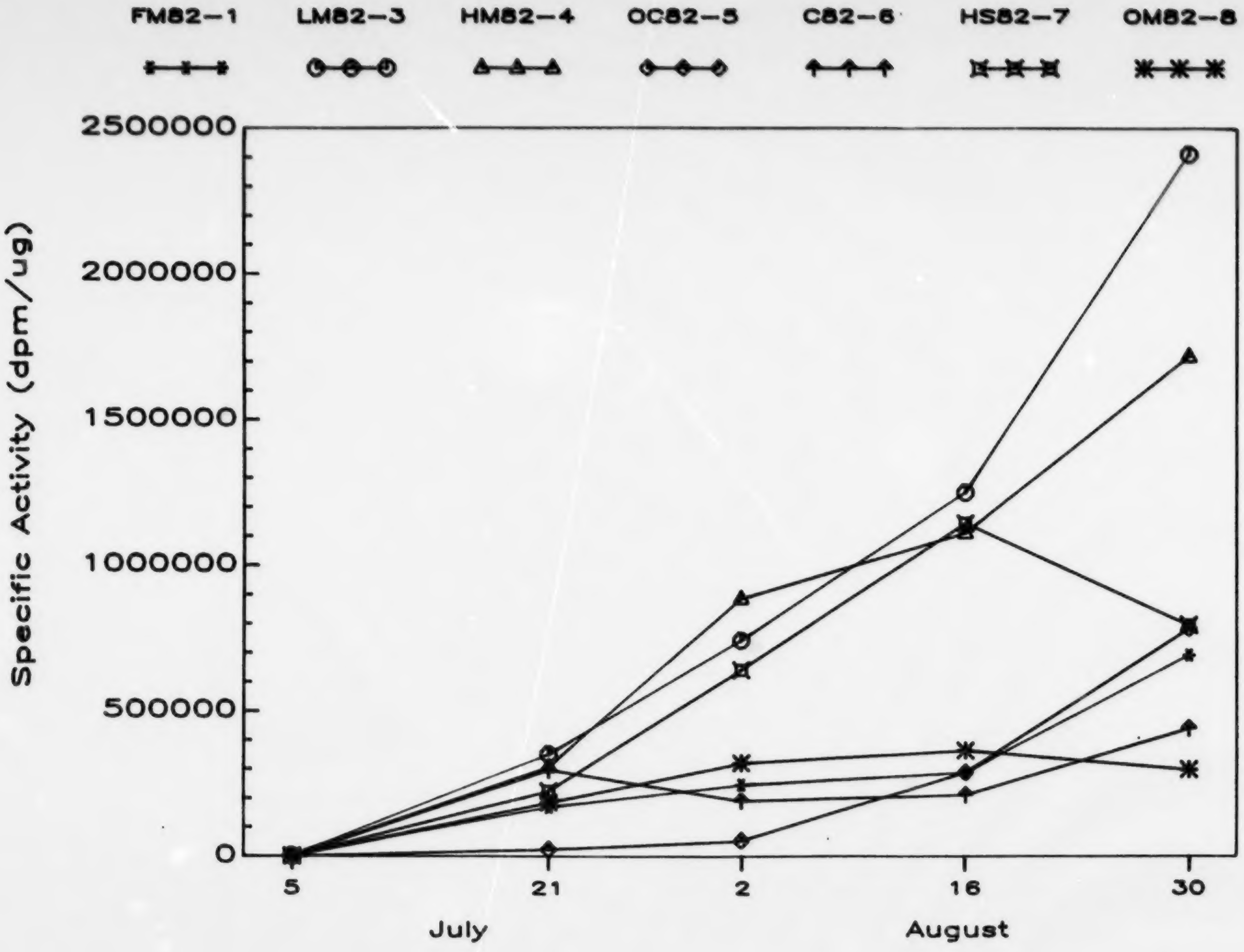

Fig. 5. Specific activity of ^{203}Hg in yellow perch muscle in 1982.

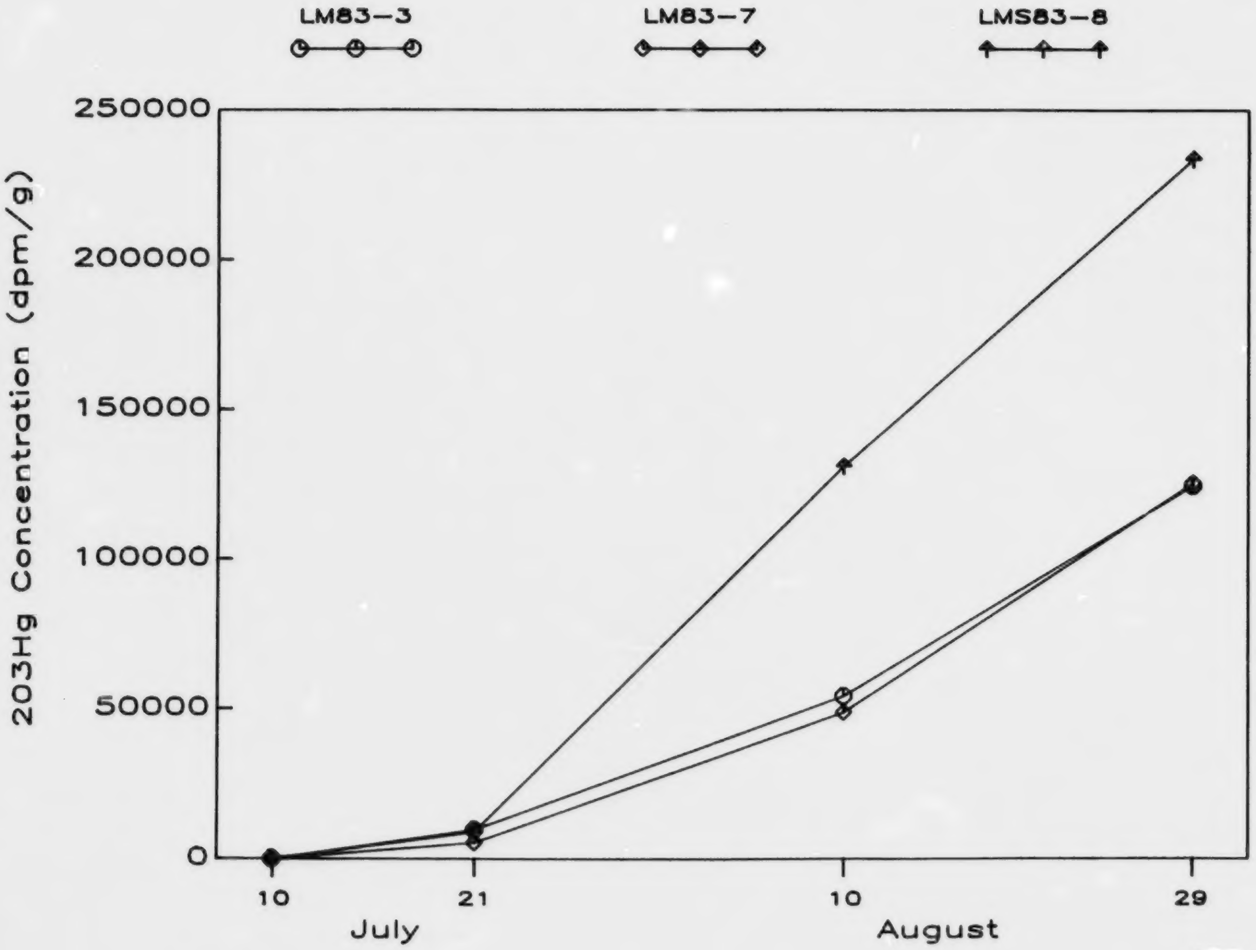

Fig. 6. Concentration of ^{203}Hg in yellow perch muscle in low moss-peat limnocorrals, 1983. Lake sediment was added in suspension with moss to LMS83-8.

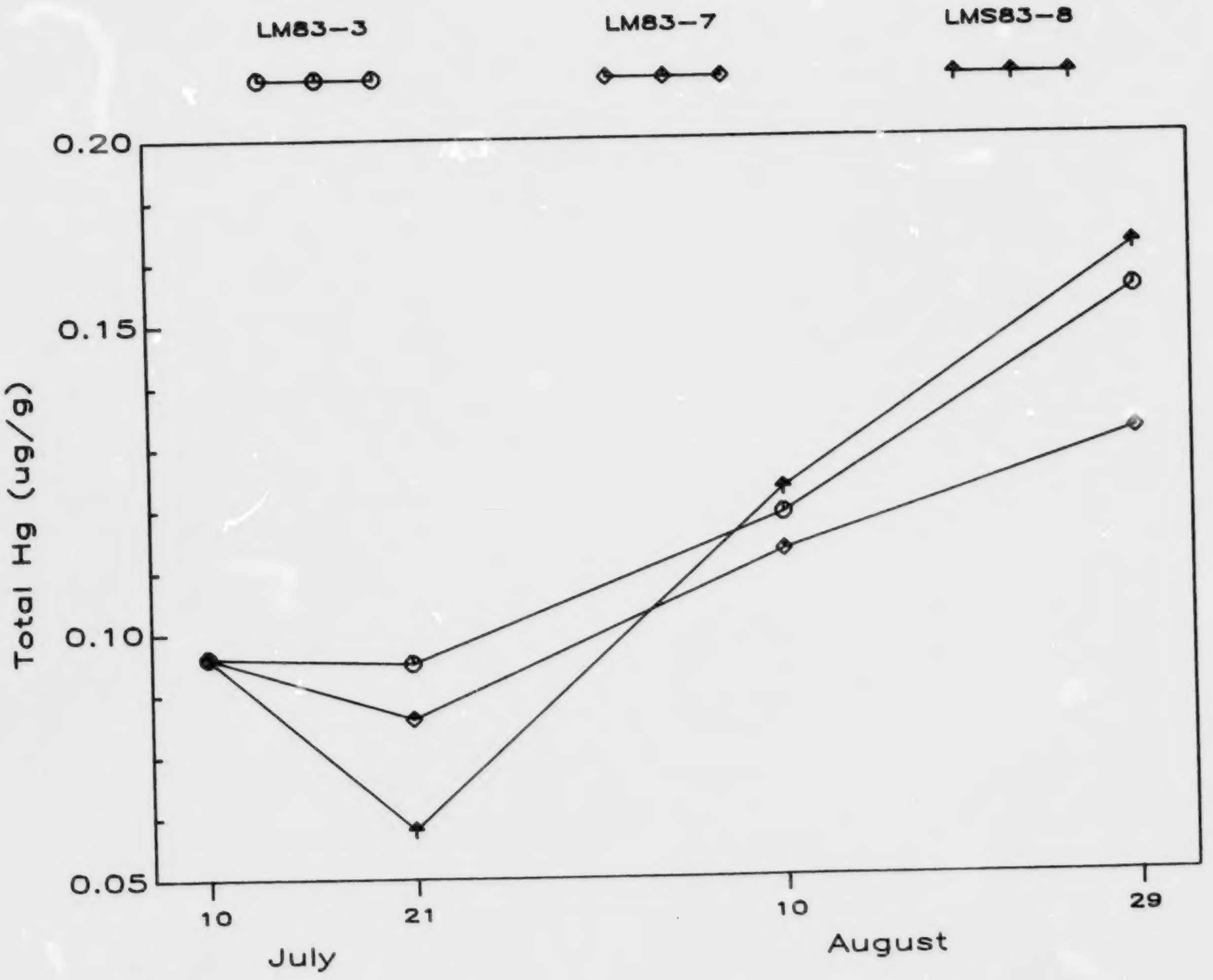

Fig. 7. Concentration of total Hg in yellow perch muscle in low moss-peat limnocorrals in 1983.

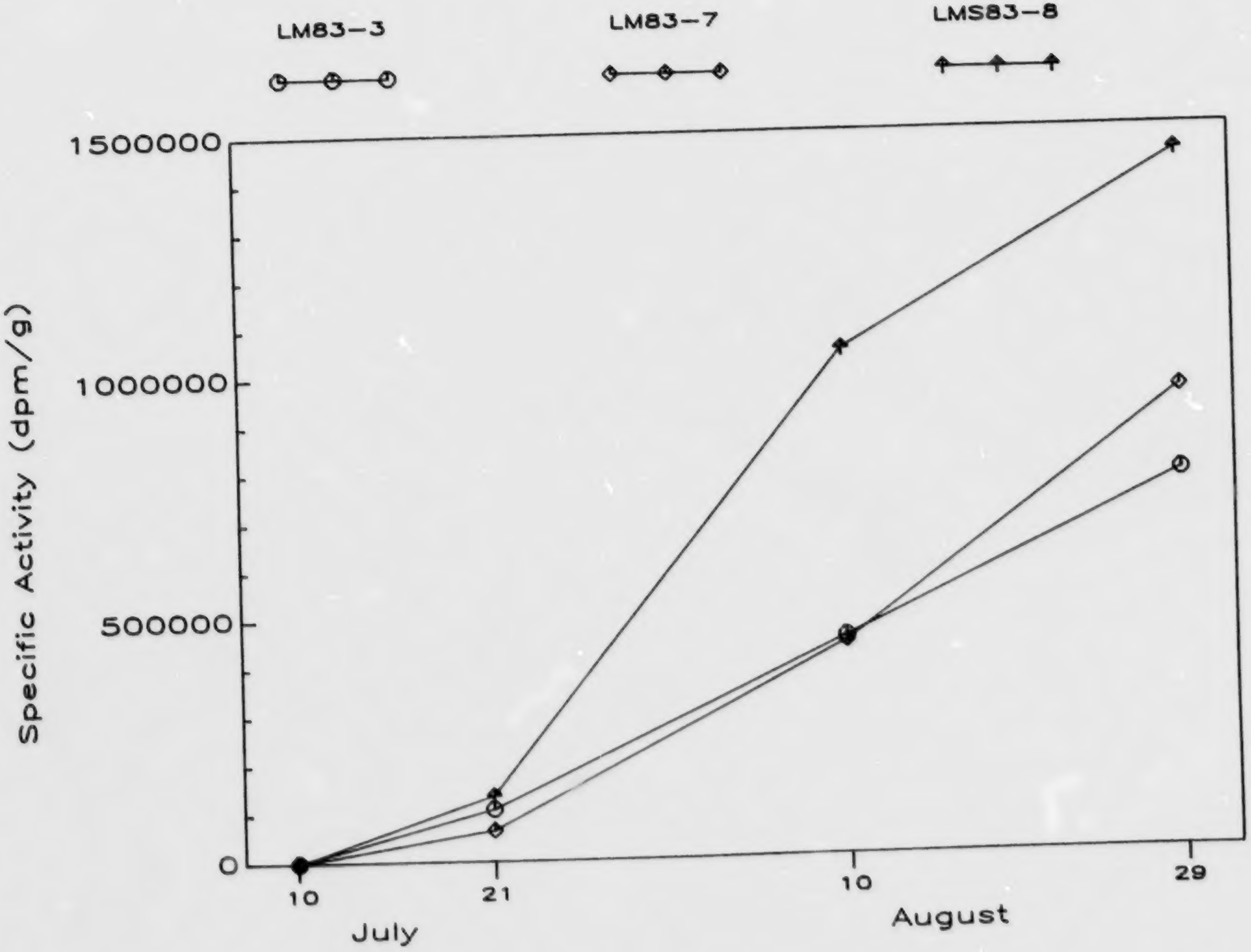

Fig. 8. Specific activity of ^{203}Hg in muscle of yellow perch from low moss-peat limnocorrals, 1983.

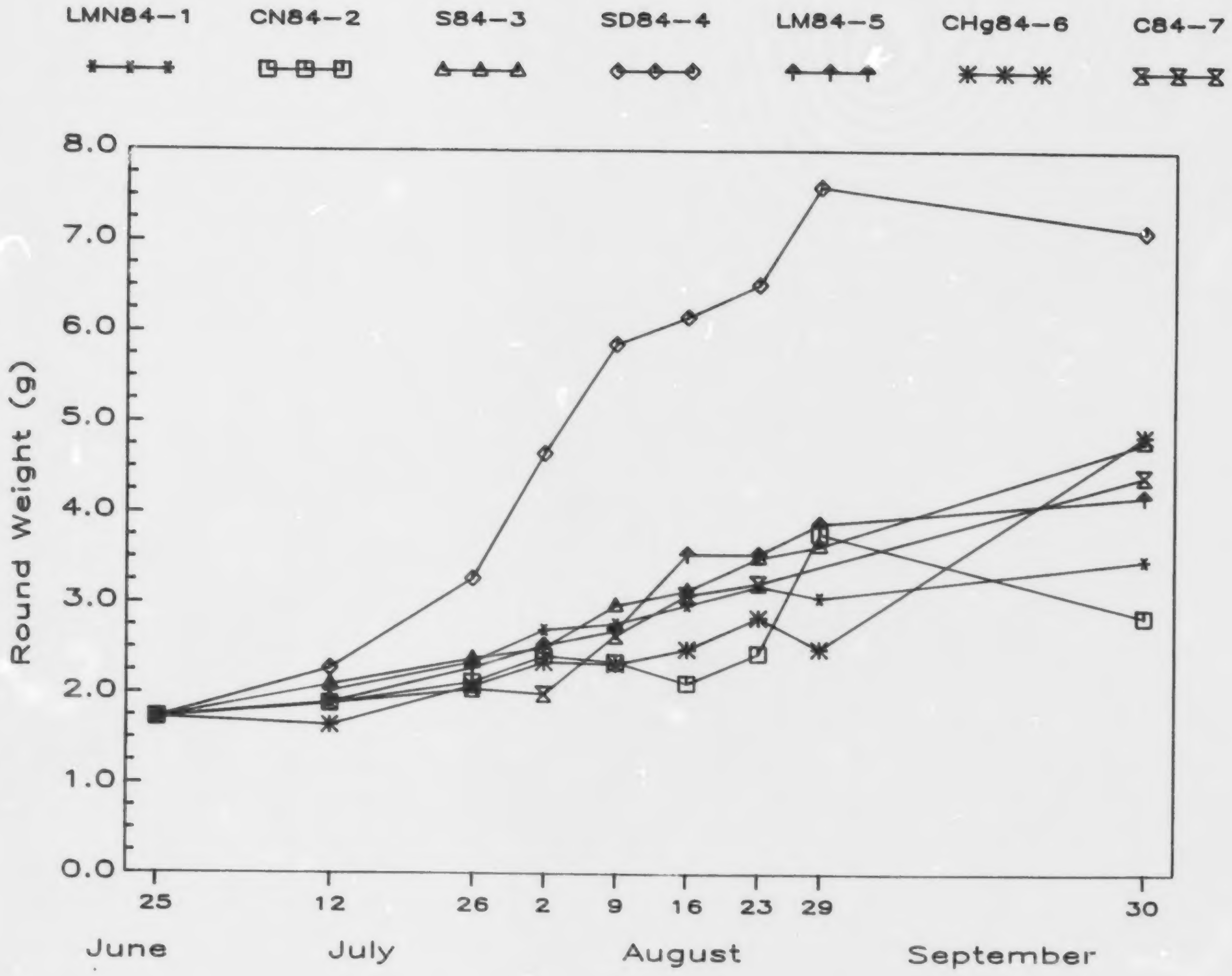

Fig. 9. Fish growth in limnocorrals in 1984.

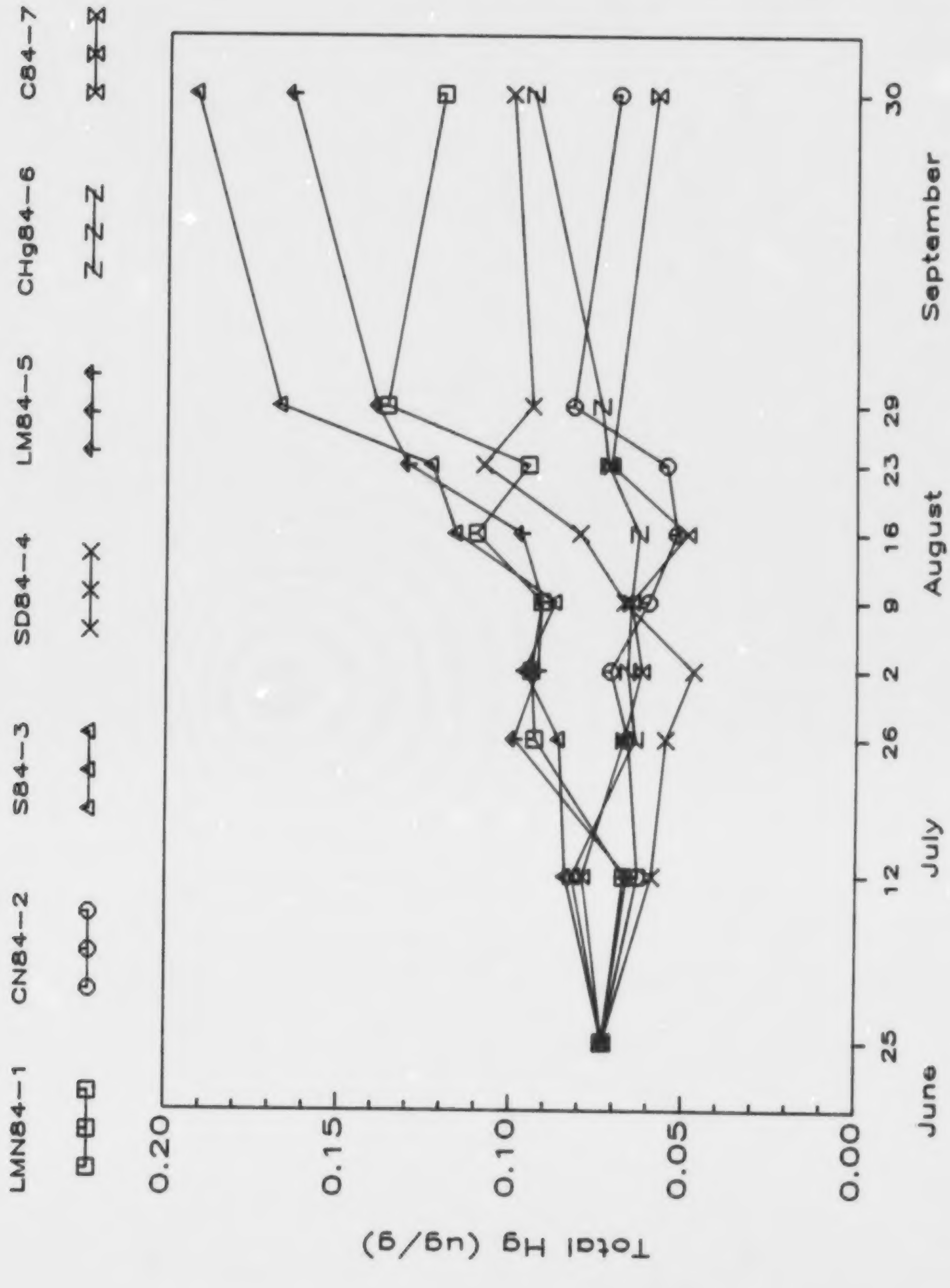

Fig. 10. Concentration of total Hg in yellow perch muscle in 1984.

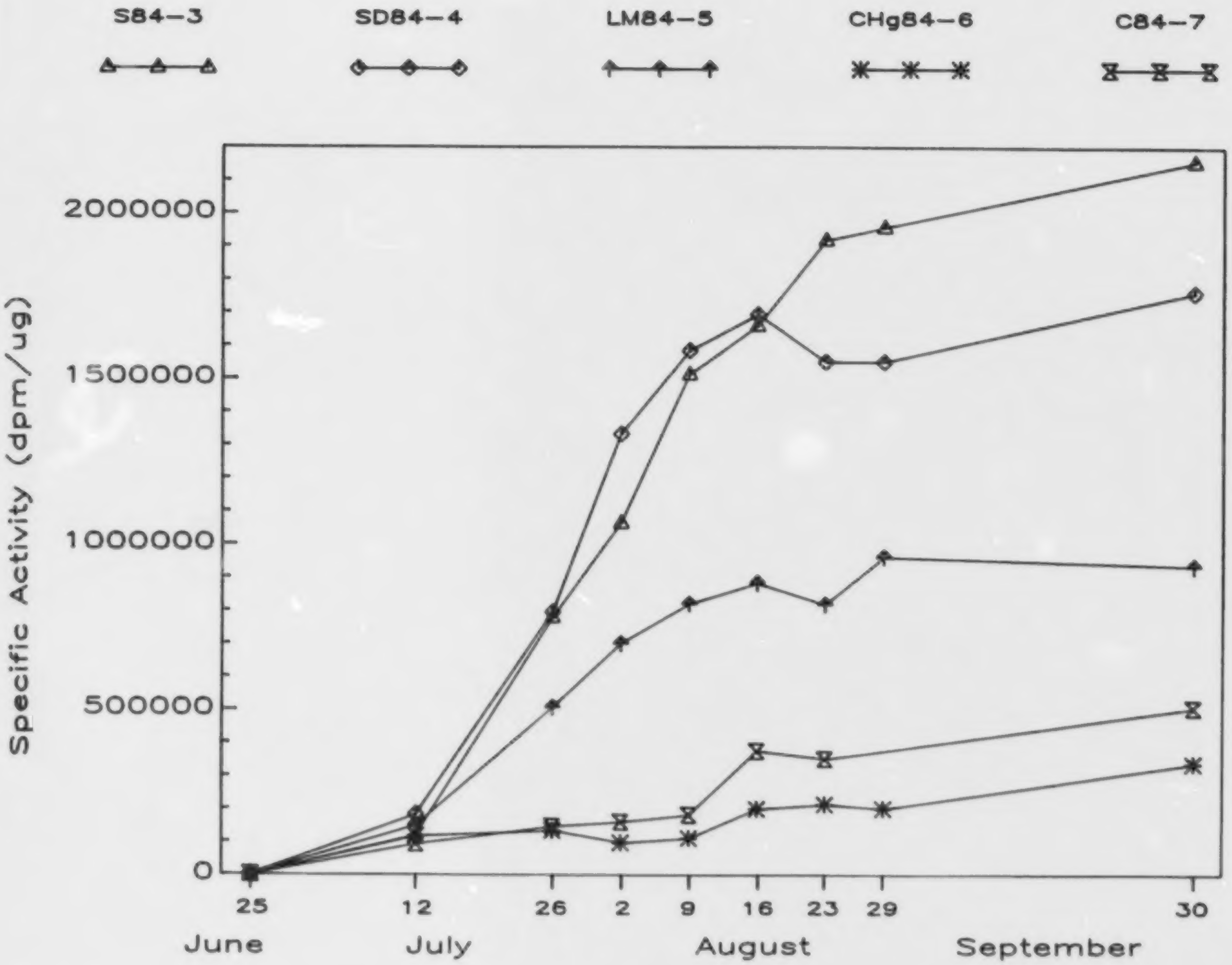

Fig. 11. Specific activity of ^{203}Hg in muscle of yellow perch, 1984.

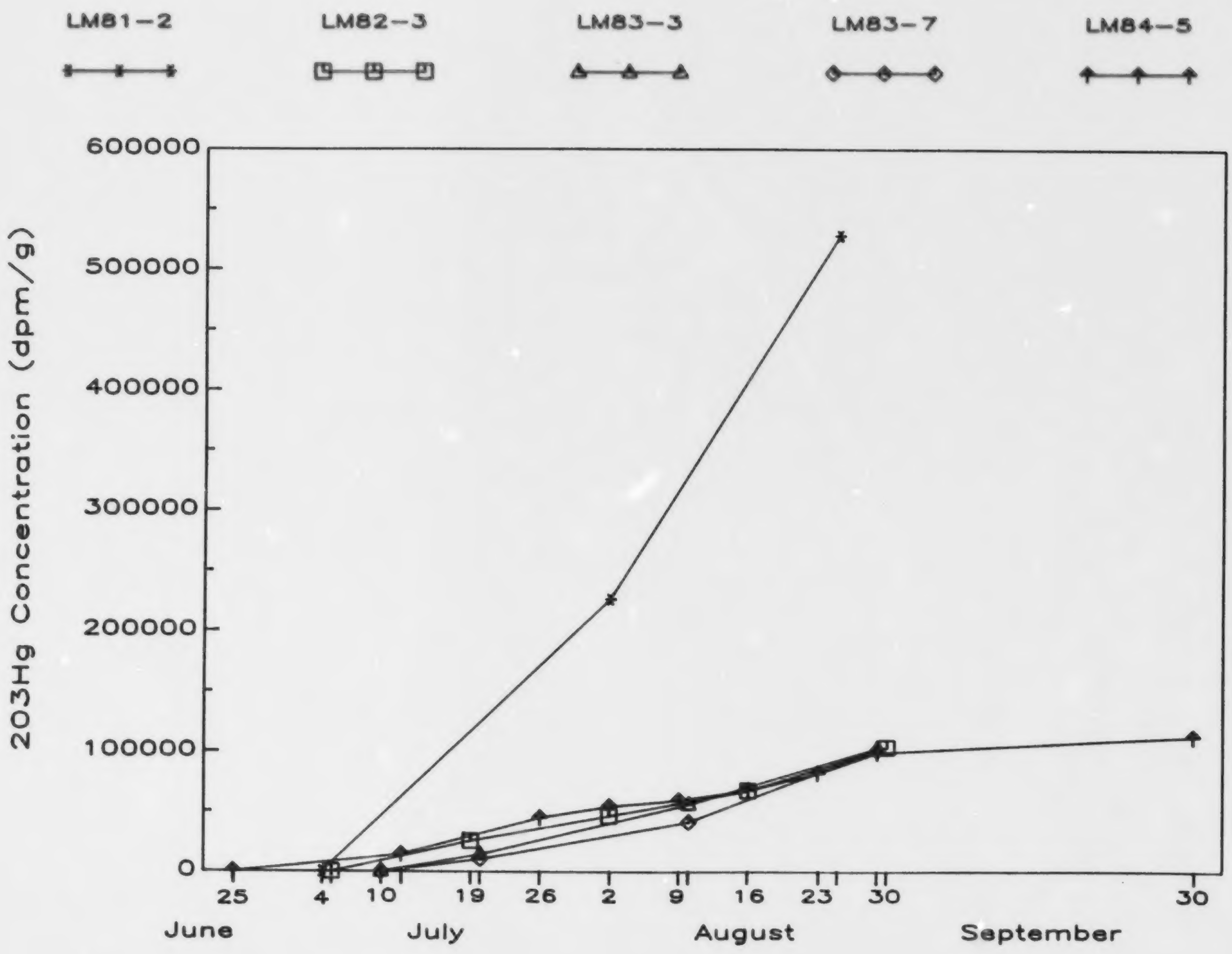

Fig. 12a. Comparison of ^{203}Hg uptake by yellow perch muscle in low moss-peat limnocorrals, 1981-84.

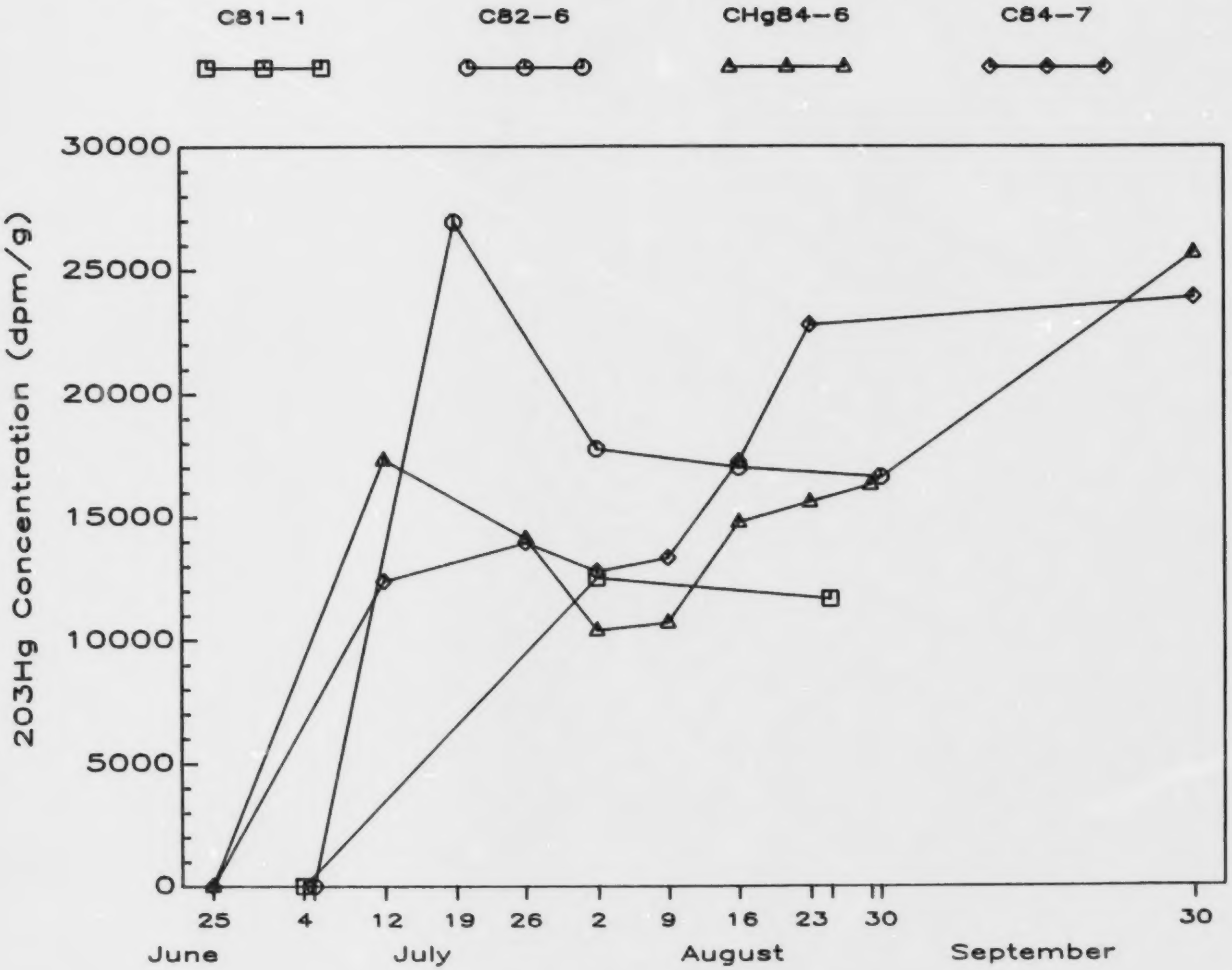

Fig. 12b. Comparison of ^{203}Hg uptake by yellow perch muscle in control limnocorrals, 1981-84.

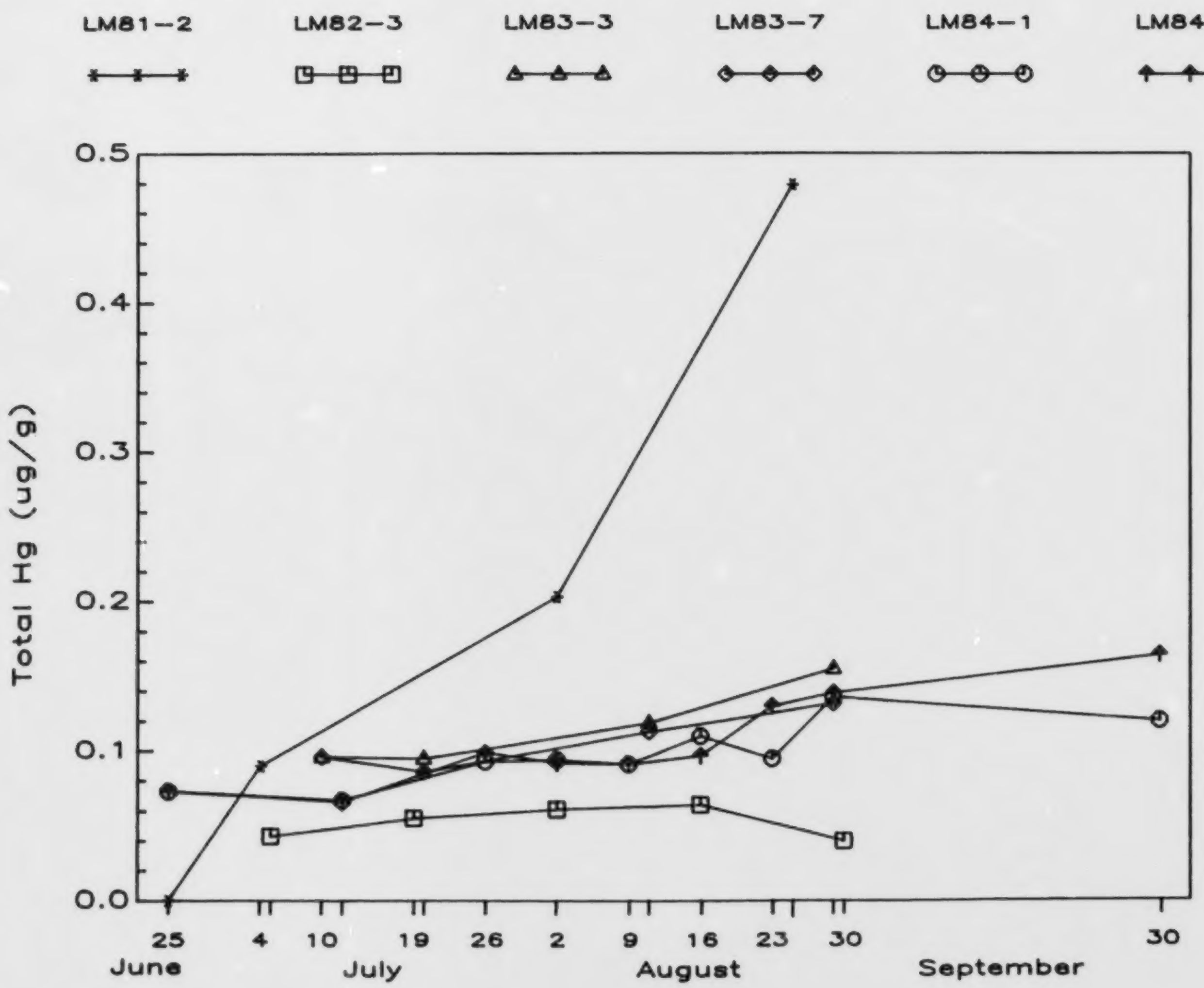

Fig. 13a. Comparison of total Hg uptake by yellow perch muscle in low moss-peat limnocorrals, 1981-84.

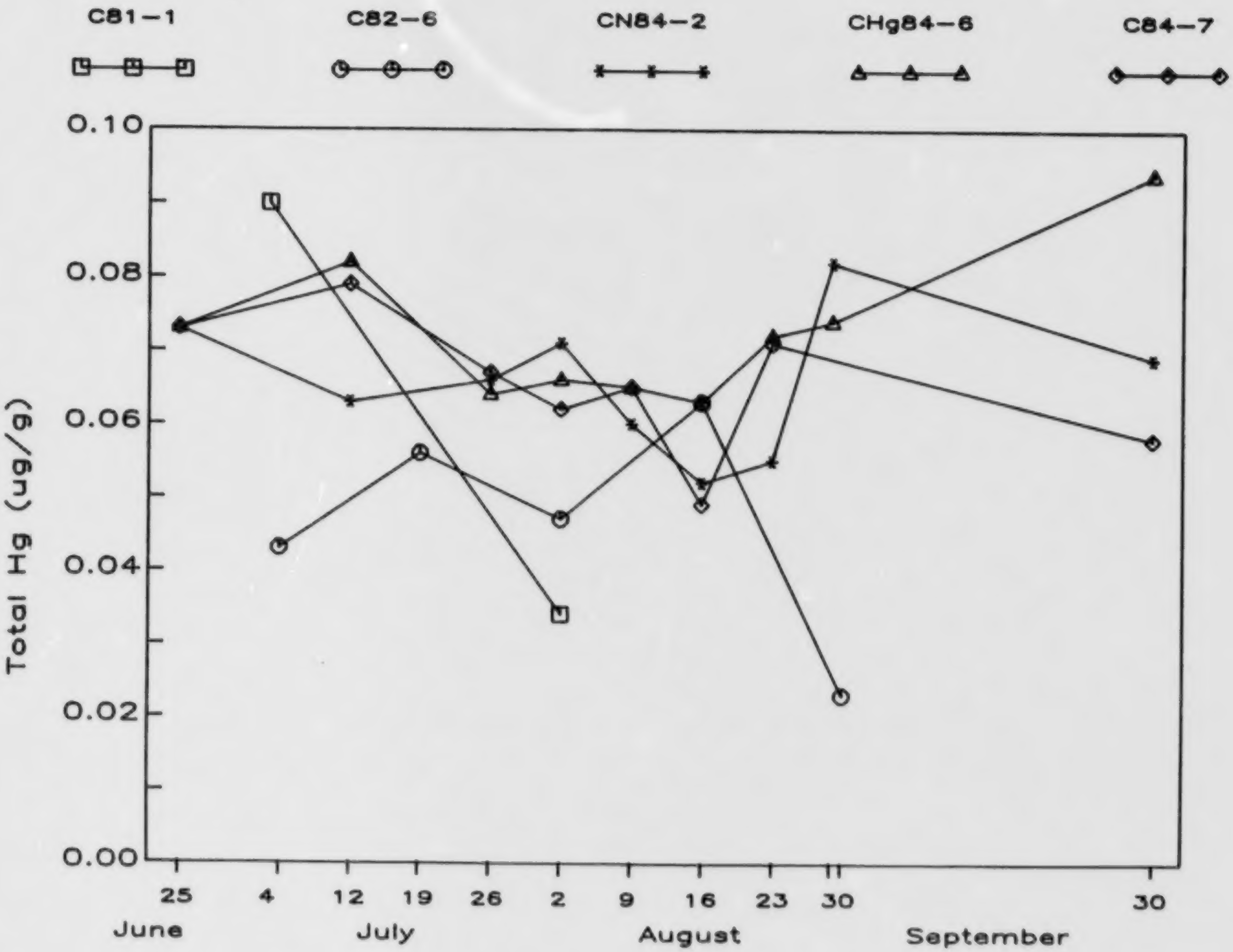

Fig. 13b. Comparison of total Hg uptake by yellow perch muscle in control limnocorrals, 1981-84.

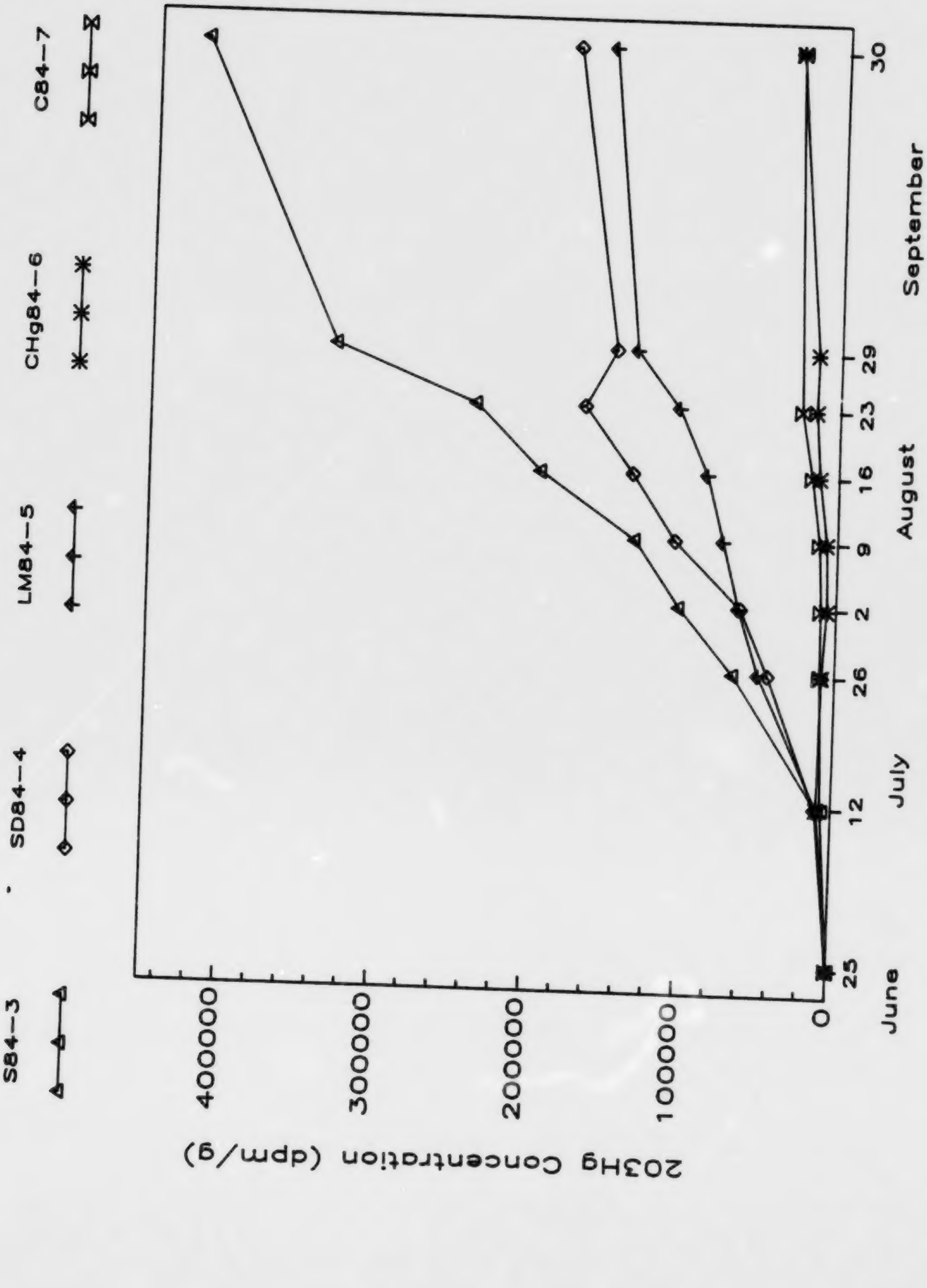

Fig. 14 Concentration of ^{203}Hg in yellow perch muscle in 1984.

Table 1. Limnocorral designators, treatment names, bottom type, volume, and mean depth. Volume and mean depth were calculated from the measured dilution of a tritium addition. Enclosures were new except where noted and most received a ^{203}Hg addition.

	Designator					
Year	Present	Previous	Treatment name	Bottom type	Volume (m^3)	Mean depth (m)
1981	C81-1		Control	natural	234	2.98
	LM81-2		Low moss	natural	261	3.32
	PN81-3		Phosphorus & nitrogen	plastic	240	3.05
	LS81-4		Low sediment	plastic	305	3.89
	C81-5		Control	plastic	277	3.53
	HS81-6		High sediment	plastic	297	3.78
	C81-7		Control	plastic	276	3.52
	L81-8		Lake			
1982	FM82-1		Flooded moss-sedge-grass	natural	162	2.05
	LM82-3		Low moss	natural	267	3.40
	HM82-4		High moss	natural	200	2.55
	OC82-5	C81-1	Old control	natural	258	3.29
	C82-6		Control	natural	222	2.82
	HS82-7		High sediment	natural	217	2.76
	OM82-8	LM81-2	Old moss	natural	256	3.26
	L82-9		Lake			
1983	DFM83-1	FM82-1	Disturbed flooded moss	natural	184	2.34
	SP83-2		Black spruce	natural	261	3.33
	LM83-3		Low moss	natural	263	3.35
	OC83-4	C82-6	Old control	natural	253	3.22
	OAS83-5	HS82-7	Old added sediment	natural	235	2.99
	OM83-6	OM82-8, LM81-2	Old moss	natural	238	3.03
	LM83-7		Low moss	natural	235	2.99
	LMS83-8		Low moss and sediment	natural	275	3.50
	L83-9		Lake			
1984	LMN84-1		Low moss, no ^{203}Hg	natural	252	3.21
	CN84-2		Control, no ^{203}Hg	natural	272	3.47
	SP84-3		Black spruce	natural	289	3.68
	SD84-4		Prairie sod	natural	303	3.86
	LM84-5		Low moss	natural	247	3.15
	CHg84-6		Control, added Hg	natural	279	3.55
	C84-7		Control	natural	272	3.47
	L84-8		Lake			

Table 2. Type, mass, nutrient composition, total mercury content, time of addition, and mass of total mercury in treatment materials added to the enclosures. na = no analysis.

Limnocorral	Treatment	Time of addition	Mass added (kg)		Nutrient & Hg content (mg·g^{-1}, dry wt)					Mass Hg added (g)
			Wet	Dry	C	N	P	CO_3	Hg	
LM81-2	*Sphagnum* moss-peat	430 kg on June 21, remainder on June 24	565	63	419	3.9	0.4	na	0.10	6.3
PN81-3	Phosphorus as $NaH_2PO_4 \cdot 2H_2O$ Nitrogen as $NaNO_3$	P: four equal additions every second week	-	-	-	-	3.7^{b}	-	-	-
		N: 4.1 g on June 21, remainder on July 15	-	-	-	7.5^{c}	-	-	-	-
LS81-4	Bank clay	Weekly to maintain Secchi near 0.5 m	43	33	24	0.3	0.6	16	0.02	0.66
HS81-6	Bank clay	Weekly to maintain Secchi near 0.3 m	71	52	24	0.3	0.6	16	0.02	1.04
FM82-1	Enclosure located over a land surface flooded in 1976	June 27	-	-	-	-	-	-	-	-
LM82-3	Moss-peat	June 30	468	50	351	4.5	0.4	na	0.14	7.0
HM82-4	Moss-peat	June 30	936	100	351	4.5	0.4	na	0.14	14.0
HS82-7	Bank clay	Twice weekly to maintain Secchi near 0.35 m	74	50	17	0.5	0.6	13	0.04	2.0
DFM83-1	Surface of moss-peat bed disturbed to about 5 cm depth	June 29	-	-	-	-	-	-	-	-
SP83-2	Black spruce (*Picea mariana*) boughs <1 cm diameter	June 30	219	157						
LM83-3	Moss-peat	June 30	414	47	385^{c}	4.2^{c}	0.4^{c}	na	0.09	4.23
LM83-7	Moss-peat	June 30	414	47	385^{c}	4.2^{c}	0.4^{c}	na	0.09	4.23
LMS83-8	Moss-peat and lake bottom sediment	Moss-peat on June 30 and sediment added twice weekly to maintain Secchi near 0.4 m	394 157	44	385^{c}	4.2^{c}	0.4^{c}	na	0.09	3.96
LMN84-1	Moss-peat	June 26	449	53	496	7.2	0.7	na	0.04	2.12
SP84-3	Black spruce boughs <1 cm diameter	June 26	58	31	529	5.0	0.7	na	0.03	0.93
SD84-4	Prairie sod	June 26	940	610	135	13.0	1.8	na	0.06	36.60
LM84-5	Moss-peat	June 26	449	53	486	7.2	0.7	na	0.04	2.12
Chg84-6	Mercury as $HgCl_2$	June 27	-	-	-	-	-	-	-	2.20×10^{-3}

[a,b] Total mass (g) added.

[c] Means of analyses on material added in 1981 and 1982.

Table 3. Total number of yellow perch and emerald shiners of given age class that were recovered/stocked in each limnocorral. The number of extraneous fish (i.e. those trapped during limnocorral construction) recovered is also shown.

Year	Limnocorral Designator	Fish recovered/stocked				Extraneous fish recovered
		Yellow perch			Emerald shiner	
		(0+)	(1+)	(2+)	(2+)	
1981	C81-1		23/111		12/28	207
	LM81-2		46/111		11/29	29
	PN81-3		20/112		4/28	4
	LS81-4		34/108		8/27	23
	C81-5		34/110		8/29	0
	HS81-6		33/111		13/27	2
	C81-7		28/111		12/30	4
1982	FM82-1		64/80			36
	LM82-3		80/80			89
	HM82-4		62/80			27
	OC82-5		29/80			21
	C82-6		79/80			27
	HS82-7		71/80			74
	OM82-8		65/80			22
1983	DFM83-1	14/60		27/32		52
	SP83-2	0/0		8/32		5
	LM83-3	26/60		27/32		1
	OC83-4	31/60		20/32		9
	OAS83-5	39/60		32/32		63
	OM83-6	0/60		4/32		7
	LM83-7	58/60		31/32		35
	LMS83-8	60/60		32/32		73
1984	LMN84-1		100/100			62
	CN84-2		85/100			22
	SP84-3		87/100			29
	SD84-4		84/100			57
	LM84-5		68/100			26
	CHg84-6		77/100			2
	C84-7		86/100			1

Table 4. Growth of yellow perch and emerald shiners in limnocorrals, 1981-84. Data for the Aug 29, 1984 sample has been included because the 1981-83 experiments all ended at approximately this time. Age of fish used each year is shown in parentheses. The 0+ perch in 1983 were added Aug 5 (24 days in limnocorral). (n/s = no sample).

Year	Limnocorral designator	Initial round wt - final round wt (g)				Gain in round wt (g)				Duration of experiment	Average wt gain (g/day)			
		Yellow perch			Emerald shiner	Yellow perch			Emerald shiner		Yellow perch			Emerald shiner
		(0+)	(1+)	(2+)	(2+)	(0+)	(1+)	(2+)	(2+)		(0+)	(1+)	(2+)	(2+)
1981	C81-1		1.03-6.37		2.60-4.02		5.34		1.42	July 4-Aug 25 (52 days)		0.10		0.03
	LM81-2		1.03-5.56		2.60-4.28		4.53		1.68			0.09		0.03
	PN81-3		1.03-n/s		2.60-4.00		n/s		1.40			n/s		0.03
	LS81-4		1.03-5.13		2.60-4.00		4.10		1.40			0.08		0.03
	C81-5		1.03-5.77		2.60-3.89		4.74		1.29			0.09		0.02
	HS81-6		1.03-6.30		2.60-3.85		5.27		1.25			0.10		0.02
	C81-7		1.03-n/s		2.60-3.94		n/s		1.34			n/s		0.03
1982	FM82-1		1.43-3.44				2.01			July 4-Aug 30 (57 days)		0.04		
	LM82-3		1.43-3.45				2.02					0.04		
	HM82-4		1.43-4.81				3.38					0.06		
	OC82-5		1.43-3.97				2.54					0.04		
	C82-6		1.43-3.52				2.09					0.04		
	HS82-7		1.43-2.96				1.53					0.03		
	OM82-8		1.43-4.17				2.74					0.05		
1983	DFM83-1	0.38-1.60		3.60-7.79		1.22		4.19		July 7-Aug 29 (53 days)	0.05		0.08	
	SP83-2	0.38-n/s		3.60-n/s		n/s		n/s			n/s		n/s	
	LM83-3	0.38-1.17		3.60-7.52		0.79		3.92			0.03		0.07	
	OC83-4	0.38-1.33		3.60-8.45		0.95		4.85			0.04		0.09	
	OAS83-5	0.38-1.57		3.60-7.75		1.19		4.15			0.05		0.08	
	OM83-6	0.38-n/s		3.60-n/s		n/s		n/s			n/s		n/s	
	LM83-7	0.38-1.23		3.60-6.17		0.85		2.57			0.04		0.05	
	LMS83-8	0.38-1.07		3.60-7.05		0.69		3.45			0.03		0.06	
1984	LM84-1		1.72-3.06				1.34			June 27-Aug 29 (63 days)		0.05		
	CN84-2		1.72-3.77				2.05					0.06		
	SP84-3		1.72-3.63				1.91					0.06		
	SD84-4		1.72-7.60				5.88					0.12		
	LM84-5		1.72-3.88				2.16					0.06		
	CHg84-6		1.72-2.49				0.77					0.04		
	C84-7		1.72-n/s				n/s					n/s		
	LMN84-1		1.72-3.48				1.76			June 27-Sept 30 (95 days)		0.02		
	CN84-2		1.72-2.85				1.13					0.01		
	SP84-3		1.72-4.79				3.07					0.03		
	SD84-4		1.72-7.11				5.39					0.06		
	LM84-5		1.72-4.19				2.47					0.03		
	CHg84-6		1.72-4.86				3.14					0.03		
	C84-7		1.72-4.41				2.69					0.03		

Table 5. Activity of ^{3}H and ^{203}Hg spikes added to the limnocorrals, concentration in water following the spike, total mercury added in the spikes, measured concentration of total mercury in the water after the spike, and estimated maximum contribution of spike to water mercury concentration based on specific activity, 1981-1984.

Year	Limnocorral	Activity added (Bq)		Concentration in water (Bq·L^{-1})		Specific activity of ^{203}Hg spike	Mass Hg Added (mg)	Total Hg in water (ng·L^{-1})	
		^{3}H (x10^{9})	^{203}Hg (x10^{8})	^{3}H (x10^{4})	^{203}Hg (x10^{2})^{a}	(x10^{8} Bq (mg Hg)$^{-1}$)		Measured	Due to spike^{b}
1981	C81-1	4.63	1.55	1.98	6.63	0.85	1.85	10	8
	LM81-2	4.63	1.55	1.77	5.94		1.82	<5	7
	PN81-3	4.63	1.32	1.93	5.51		1.55	<5	7
	LS81-4	4.63	1.55	1.52	5.08		1.82	<5	6
	C81-5	4.63	1.55	1.67	5.60		1.82	7	7
	HS81-6	4.63	1.55	1.56	5.23		1.82	<5	3
	C81-7	4.63	1.55	1.68	5.61		1.82	<5	7
	L81-8							<5	
1982	FM82-1	3.70	1.39	2.28	8.60	1.22	1.14	20	7
	LM82-3	3.70	1.39	1.39	5.21		1.14	<6	4
	HM82-4	3.70	1.39	1.85	6.94		1.14	16	6
	OC82-5	3.70	1.39	1.43	5.38		1.14	11	4
	C82-6	3.70	1.39	1.67	6.26		1.14	11	5
	HS82-7	3.70	1.39	1.70	6.40		1.14	9	5
	OM82-8	3.70	1.39	1.45	5.43		1.14	8	4
	L82-9							<2	
1983	DFM83-1	3.70	1.86	2.02	10.13	1.35	1.38	na	8
	SP83-2	3.70	1.86	1.42	7.12		1.38		5
	LM83-3	3.70	1.86	1.41	7.07		1.38		5
	OC83-4	3.70	1.86	1.47	7.36		1.38		5
	OAS83-5	3.70	1.86	1.58	7.92		1.38		6
	OM83-6	3.70	1.86	1.56	7.82		1.38		6
	LM83-7	3.70	1.86	1.58	7.92		1.38		6
	LMS83-8	3.70	1.86	1.35	6.77		1.38		5
1984	SP84-3	0.24	1.39	0.08	4.81	2.11	0.66	na	2
	SD84-4	0.24	1.39	0.08	4.58		0.66		2
	LM84-5	0.24	1.39	0.10	5.63		0.66		3
	CHg84-6	0.24	1.39	0.09	5.10		0.66		2
	C84-7	0.24	1.39	0.09	5.10		0.66		2

[a] Nominal concentration estimated from activity added and volume of limnocorral.

[b] Nominal concentration estimated from specific activity of spike and volume of limnocorral.

na No analysis.

Table 6. Activity of other isotopes added to the limnocorrals in 1981 and nominal concentration in the water immediately following the spike. ^{22}Na was added only to LS81-4.

Parameter	Limnocorral	Isotope				
		^{75}Se	^{134}Cs	^{65}Zn	^{60}Co	^{22}Na
Activity added ($\times 10^{7}$ Bq)	all	3.29	8.33	39.0	22.0	3.70
Concentration in water ($\times 10^{2}$ Bq$\cdot$L^{-1})	C81-1	1.41	3.56	16.7	9.40	-
	LM81-2	1.26	3.19	14.9	8.43	-
	PN81-3	1.37	3.47	16.3	9.17	-
	LS81-4	1.08	2.73	12.8	7.21	1.21
	C81-5	1.19	3.01	14.1	7.94	-
	HS81-6	1.11	2.80	13.1	7.41	-
	C81-7	1.19	3.02	14.1	7.97	-

Table 7. Comparison of mean (± SD) ^{203}Hg activity (cpm·g^{-1}, wet wt) in fish at the end of the 1981 experiment. (Standard deviation not included when n=1). Values presented for the stocked perch and shiners are for mathematically combined muscle and carcass counts. Values for the extraneous fish represent counts of whole fish.

	^{203}Hg activity						
Species	C81-1	LM81-2	PN81-3	LS81-4	C81-5	HS81-6	C81-7
Stocked fish:							
Yellow perch	456 (18)	20,657 (3693)		2,015 (646)	1,220 (235)	1,169 (67)	
Emerald shiner shiner	602 (90)	20,234 (3145)	1,450 (181)	2,715 (422)	1,561 (156)	1,519 (225)	1,010 (251)
Extraneous fish:							
Stickleback	578 (226)						
Trout-perch	936 (398)	13,178					
Cisco	2,073						
Burbot		8,390					
Spottail shiner		25,842 (6529)	2,607				
Johnny darter		31,351 (10,525)					
Sculpin				2,428		2,990	
Emerald shiner				1,040			

Table 8. Mean percentage (± SD) of ^{203}Hg in fish muscle present as methyl mercury in the 1981 limnocorral experiment. (n/s = no sample).

Limnocorral	Yellow perch August 2-3	Yellow perch August 24-25	Emerald shiners August 24-25
C81-1	91 (8)	92 (17)	118 (8)
LM81-2	99 (3)	97 (14)	102 (5)
PN81-3	79 (13)	n/s	92 (3)
LS81-4	87 (8)	100 (9)	103 (5)
C81-5	61 (9)	79 (7)	79 (2)
HS81-6	95 (22)	100 (1)	94 (2)
C81-7	44 (15)	n/s	50 (12)

Table 9. Mean concentration (± SD) of total mercury ($\mu g \cdot g^{-1}$, wet wt) in yellow perch muscle at the start, middle, and end of the 1981 experiment and specific activity ($x10^{8}$ $Bq \cdot (mg \cdot Hg)^{-1}$) of ^{203}Hg in perch muscle at the end of the experiment. (n/s = no sample).

	Total Hg concentration			Specific activity
Limnocorral	July 1	August 2-3	August 24-25	August 24-25
C81-1	0.090 (0.020)	0.034 (0.023)	n/s	n/s
LM81-2	0.090 (0.020)	0.200 (0.030)	0.470 (0.080)	0.210 (0.023)
PN81-3	0.090 (0.020)	0.041 (0.005)	n/s	n/s
LS81-4	0.090 (0.020)	0.044 (0.007)	0.039 (0.008)	0.230 (0.043)
C81-5	0.090 (0.020)	0.039 (0.012)	0.065 (0.027)	0.070 (0.024)
HS81-6	0.090 (0.020)	0.040 (0.005)	n/s	n/s
C81-7	0.090 (0.020)	0.053 (0.018)	n/s	n/s

Table 10. Comparison of the specific activity of the ^{203}Hg spike (corrected for the mass of Hg added in the treatment materials) to the specific activity of ^{203}Hg in fish muscle at the end of the 1984 experiment. The corrected specific activity of the spike assumes that all of the Hg added in the treatments was available.

Limnocorral	Mass Hg added (mg)		Corrected specific activity of spike (Bq·(mg Hg)$^{-1}$)	Specific activity in fish muscle (Bq·(mg Hg)$^{-1}$)
	Spike	Treatments		
SP84-3	0.66	9.3×10^{2}	1.5×10^{5}	3.6×10^{7}
SD84-4	0.66	3.7×10^{4}	3.7×10^{3}	2.9×10^{7}
LM84-5	0.66	2.1×10^{3}	6.6×10^{4}	1.6×10^{7}
CHg84-6	0.66	2.2	4.9×10^{7}	5.6×10^{6}
C84-7	0.66	-	2.1×10^{8}	8.4×10^{6}

Table 11. Comparison of seasonal mean Secchi disk visibility, chlorophyll *a* concentration, and water column temperature in Wupaw Bay with growth of yellow perch in the control limnocorrals, 1981-1984. Fish growth represents the increase in mean round weight of added yellow perch over the course of the experiment.

	1981	1982	1983	1984
Temperature (°C)	18.59	16.98	19.05	19.48
Secchi (m)	1.46	1.28	1.56	1.40
Chlorophyll *a* ($\mu g \cdot L^{-1}$)	2.78	2.00	2.12	NA
Perch growth (g)	5.34	2.09	4.85*	2.05**

* This is the weight gain of 2+ yellow perch; values for other years are for 1+ perch. The weight gain of 1+ perch in 1983 may have been significantly less than 4.85 g

** This is the weight gain from CN84-2 from the beginning of the experiment to Aug 29, which is approximately the same period as in 1981-83.

Appendix 1

Summary of temperature, conductivity, and Secchi disc visibility measurements in the limnocorrals and surrounding bay, 1981-1984

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Table A.1.1. Summary of physical conditions in the limnocorrals, 1981.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column	
				Temp. (C)	Cond. (µS/cm)
C81-1	20-Jun	171	1.75	-	-
	23-Jun	174	1.70	-	-
	26-Jun	177	1.60	-	-
	01-Jul	182	2.30	18.66	67
	02-Jul	183	1.60	-	-
	03-Jul	184	2.10	-	-
	07-Jul	188	1.90	17.86	66
	10-Jul	191	1.50	17.22	-
	13-Jul	194	1.90	19.14	70
	19-Jul	200	1.90	18.95	68
	27-Jul	208	1.35	18.48	71
	02-Aug	214	1.90	17.99	73
	03-Aug	215	1.50	-	-
	13-Aug	225	1.79	18.64	74
	14-Aug	226	1.90	-	-
	16-Aug	228	1.70	-	-
	19-Aug	231	-	19.60	-
	20-Aug	232	-	18.82	-
	21-Aug	233	2.10	-	-
	23-Aug	235	2.60	21.15	-
LM81-2	20-Jun	171	1.90	-	-
	24-Jun	175	1.85	-	-
	26-Jun	177	1.50	-	-
	01-Jul	182	2.25	18.69	56
	02-Jul	183	1.70	-	-
	03-Jul	184	2.10	-	-
	07-Jul	188	2.10	17.97	54
	10-Jul	191	1.40	16.98	-
	13-Jul	194	1.80	19.38	57
	19-Jul	200	2.50	19.05	57
	27-Jul	208	2.23	18.43	59
	02-Aug	214	3.00	18.21	61
	03-Aug	215	3.00	-	-
	13-Aug	225	2.95	19.02	60
	14-Aug	226	2.90	-	-
	16-Aug	228	2.80	-	-
	19-Aug	231	-	19.47	-
	20-Aug	232	-	18.93	-
	21-Aug	233	2.50	-	-
	23-Aug	235	2.80	21.37	-
PN81-3	20-Jun	171	1.90	-	-
	23-Jun	174	2.15	-	-
	26-Jun	177	2.10	-	-
	01-Jul	182	2.30	18.91	68
	02-Jul	183	1.60	-	-
	03-Jul	184	1.80	-	-
	07-Jul	188	1.60	18.01	65
	10-Jul	191	1.20	17.07	-
	13-Jul	194	1.50	19.23	69
	19-Jul	200	1.20	19.01	68
	27-Jul	208	1.03	18.64	69
	02-Aug	214	1.10	18.13	70
	03-Aug	215	0.90	-	-
	13-Aug	225	1.23	18.60	70
	14-Aug	226	1.40	-	-
	16-Aug	228	1.30	-	-
	19-Aug	231	-	19.54	-

Table A.1.1. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column	
				Temp. (C)	Cond. (µS/cm)
	20-Aug	232	-	19.01	-
	21-Aug	233	1.30	-	-
	23-Aug	235	1.20	21.29	-
LS81-4	20-Jun	171	1.90	-	-
	23-Jun	174	0.62	-	-
	24-Jun	175	0.67	-	-
	26-Jun	177	1.10	-	-
	01-Jul	182	1.80	18.89	73
	02-Jul	183	0.80	-	-
	03-Jul	184	1.00	-	-
	07-Jul	188	1.40	18.10	71
	08-Jul	189	0.50	-	-
	10-Jul	191	0.55	16.94	-
	13-Jul	194	1.30	18.68	77
	15-Jul	196	1.50	-	-
	15-Jul	196	0.50	-	-
	19-Jul	200	0.90	19.16	76
	22-Jul	203	1.10	-	-
	22-Jul	203	0.40	-	-
	27-Jul	208	0.65	18.66	79
	30-Jul	211	0.45	-	-
	30-Jul	211	0.80	-	-
	02-Aug	214	0.55	18.03	81
	03-Aug	215	0.50	-	-
	04-Aug	216	0.70	-	-
	06-Aug	218	0.50	-	-
	06-Aug	218	0.80	-	-
	13-Aug	225	0.50	18.76	85
	13-Aug	225	1.00	-	-
	14-Aug	226	0.60	-	-
	16-Aug	228	0.65	-	-
	19-Aug	231	-	19.39	-
	20-Aug	232	0.80	18.76	-
	20-Aug	232	0.50	-	-
	21-Aug	233	0.60	-	-
	23-Aug	235	0.60	21.31	-
C81-5	20-Jun	171	2.00	-	-
	23-Jun	174	2.25	-	-
	26-Jun	177	1.90	-	-
	01-Jul	182	2.50	19.37	69
	02-Jul	183	2.10	-	-
	03-Jul	184	2.50	-	-
	07-Jul	188	2.10	18.15	65
	10-Jul	191	1.95	16.79	-
	13-Jul	194	2.10	19.12	68
	19-Jul	200	2.20	19.21	67
	27-Jul	208	-	18.79	68
	02-Aug	214	2.05	18.01	67
	03-Aug	215	1.90	-	-
	13-Aug	225	3.05	18.81	68
	14-Aug	226	3.20	-	-
	16-Aug	228	3.30	-	-
	19-Aug	231	-	19.44	-
	20-Aug	232	-	18.89	-
	21-Aug	233	3.20	-	-
	23-Aug	235	3.40	21.00	-

Table A.1.1. Cont'd.

				Mean water column	
Limnocorral	Date	Day of year	Secchi (m)	Temp. (C)	Cond. (µS/cm)
HS81-6	20-Jun	171	2.30	-	-
	23-Jun	174	0.30	-	-
	24-Jun	175	0.35	-	-
	26-Jun	177	0.40	-	-
	01-Jul	182	0.80	18.74	75
	02-Jul	183	0.30	-	-
	03-Jul	184	0.35	-	-
	07-Jul	188	0.60	18.10	74
	08-Jul	189	0.30	-	-
	10-Jul	191	0.39	16.75	-
	13-Jul	194	0.70	19.16	79
	15-Jul	196	1.00	-	-
	15-Jul	196	0.30	-	-
	19-Jul	200	0.60	19.29	82
	22-Jul	203	0.80	-	-
	22-Jul	203	0.30	-	-
	27-Jul	208	0.60	18.95	87
	30-Jul	211	0.60	-	-
	30-Jul	211	0.30	-	-
	02-Aug	214	0.50	18.13	92
	03-Aug	215	0.50	-	-
	04-Aug	216	0.55	-	-
	06-Aug	218	0.35	-	-
	06-Aug	218	0.60	-	-
	13-Aug	225	0.35	18.42	93
	13-Aug	225	0.60	-	-
	14-Aug	226	0.40	-	-
	16-Aug	228	0.50	-	-
	19-Aug	231	-	19.37	-
	20-Aug	232	0.65	18.70	-
	20-Aug	232	0.35	-	-
	21-Aug	233	0.40	-	-
	23-Aug	235	0.35	20.46	-
	23-Aug	235	0.45	-	-
C81-7	20-Jun	171	2.10	-	-
	23-Jun	174	2.60	16.25	-
	26-Jun	177	2.00	-	-
	01-Jul	182	2.80	19.67	68
	02-Jul	183	2.75	-	-
	07-Jul	188	2.00	18.14	65
	10-Jul	191	1.90	16.80	68
	13-Jul	194	2.00	18.65	66
	19-Jul	200	2.00	19.73	68
	27-Jul	208	2.05	18.74	67
	02-Aug	214	2.35	18.01	67
	03-Aug	215	2.50	-	-
	13-Aug	225	2.80	-	66
	14-Aug	226	3.00	-	-
	16-Aug	228	3.00	-	-
	19-Aug	231	-	19.36	-
	20-Aug	232	-	18.64	-
	21-Aug	233	3.00	-	-
	23-Aug	235	3.00	20.01	-
L81-8	20-Jun	171	1.30	-	-
	24-Jun	175	1.50	-	-
	26-Jun	177	1.45	-	-
	01-Jul	182	1.80	19.09	72
	02-Jul	183	1.30	-	-

Table A.1.1. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column Temp. (C)	Mean water column Cond. (µS/cm)
	03-Jul	184	1.10	-	-
	07-Jul	188	1.30	17.98	67
	10-Jul	191	0.88	16.74	-
	13-Jul	194	1.40	19.40	-
	19-Jul	200	1.70	18.97	72
	27-Jul	208	1.72	18.41	76
	02-Aug	214	1.70	18.25	75
	03-Aug	215	1.70	-	-
	13-Aug	225	1.10	18.66	77
	16-Aug	228	1.70	-	-
	19-Aug	231	-	19.90	-
	20-Aug	232	-	19.41	-
	21-Aug	233	1.80	-	-
	23-Aug	235	1.55	20.53	-

Table A.1.2. Summary of physical conditions in the limnocorrals, 1982.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column	
				Temp. (C)	Cond. (µS/cm)
FM82-1	29-Jun	180	1.00	14.27	84
	04-Jul	185	1.60	-	-
	07-Jul	188	1.40	16.61	86
	08-Jul	189	1.50	-	-
	10-Jul	191	1.50	-	-
	12-Jul	193	1.80	-	-
	14-Jul	195	1.65	18.11	86
	15-Jul	196	2.20	-	-
	21-Jul	202	1.75	17.04	87
	26-Jul	207	2.45	-	-
	28-Jul	209	2.35	18.86	87
	02-Aug	214	2.40	-	-
	04-Aug	216	1.90	13.92	84
	06-Aug	218	1.80	-	-
	09-Aug	221	1.80	15.99	-
	13-Aug	225	1.70	-	-
	16-Aug	228	1.80	-	-
	20-Aug	232	1.80	17.70	86
	23-Aug	235	1.60	15.80	68
	26-Aug	238	1.65	12.42	81
	30-Aug	242	1.75	-	-
SC82-2	29-Jun	180	1.20	14.35	84
	04-Jul	185	-	18.01	-
	07-Jul	188	1.55	16.30	85
	08-Jul	189	1.70	-	-
	12-Jul	193	2.10	-	-
	14-Jul	195	1.90	16.92	86
	15-Jul	196	2.20	-	-
	19-Jul	200	2.20	-	-
	21-Jul	202	2.20	16.94	86
	26-Jul	207	2.50	-	-
	28-Jul	209	2.70	18.56	86
	29-Jul	210	2.70	-	-
	31-Jul	212	2.70	-	-
	02-Aug	214	2.40	-	-
	02-Aug	214	2.40	-	-
	03-Aug	215	2.60	15.88	82
	06-Aug	218	-	16.58	-
	09-Aug	221	2.90	15.59	-
	13-Aug	225	2.90	-	-
	16-Aug	228	1.90	-	-
	20-Aug	232	3.00	17.31	85
	23-Aug	235	2.95	16.13	84
	26-Aug	238	2.40	13.13	79
	30-Aug	242	2.80	-	-
LM82-3	29-Jun	180	1.00	13.85	84
	04-Jul	185	1.60	17.81	-
	07-Jul	188	1.90	16.00	67
	08-Jul	189	2.00	-	-
	10-Jul	191	2.00	-	-
	12-Jul	193	2.85	-	-
	14-Jul	195	2.30	17.49	70
	15-Jul	196	2.30	-	-
	19-Jul	200	2.40	-	-
	21-Jul	202	2.70	16.77	77
	26-Jul	207	3.50	-	-
	28-Jul	209	2.70	19.03	71
	31-Jul	212	3.00	18.77	71
	01-Aug	213	2.95	-	69
	02-Aug	214	2.80	-	-
	03-Aug	215	3.00	15.53	66
	04-Aug	216	2.60	14.50	67

Table A.1.2. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column	
				Temp. (C)	Cond. (µS/cm)
	06-Aug	218	2.60	-	-
	09-Aug	221	2.80	16.24	-
	09-Aug	221	-	17.03	-
	13-Aug	225	2.70	-	-
	16-Aug	228	2.10	-	-
	20-Aug	232	1.80	17.60	73
	23-Aug	235	1.70	16.07	70
	26-Aug	238	2.00	12.80	67
	30-Aug	242	2.00	-	-
HM82-4	29-Jun	180	1.05	15.16	85
	04-Jul	185	-	17.27	-
	07-Jul	188	1.70	16.19	53
	08-Jul	189	1.90	-	-
	10-Jul	191	2.10	-	-
	12-Jul	193	2.50	-	-
	14-Jul	195	1.70	17.86	52
	15-Jul	196	1.90	-	-
	19-Jul	200	2.30	-	-
	21-Jul	202	2.10	16.83	51
	26-Jul	207	2.05	-	-
	28-Jul	209	2.80	18.65	55
	02-Aug	214	1.65	-	-
	04-Aug	216	1.80	14.20	47
	06-Aug	218	1.70	-	-
	09-Aug	221	1.65	16.32	-
	13-Aug	225	1.65	-	-
	16-Aug	228	1.70	-	-
	20-Aug	232	1.45	17.65	54
	23-Aug	235	1.30	15.89	52
	26-Aug	238	1.90	12.58	49
	30-Aug	242	1.85	-	-
OC82-5	29-Jun	180	1.15	13.71	84
	04-Jul	185	1.60	17.48	-
	07-Jul	188	1.70	16.34	86
	08-Jul	189	1.70	-	-
	10-Jul	191	2.00	-	-
	12-Jul	193	2.20	-	-
	14-Jul	195	2.10	18.13	87
	15-Jul	196	2.20	-	-
	19-Jul	200	2.20	-	-
	21-Jul	202	2.40	16.83	87
	26-Jul	207	2.90	-	-
	28-Jul	209	2.70	18.95	88
	02-Aug	214	2.50	-	-
	03-Aug	215	2.60	15.34	82
	06-Aug	218	2.30	-	-
	09-Aug	221	2.75	16.40	-
	13-Aug	225	2.70	-	-
	16-Aug	228	2.50	-	-
	20-Aug	232	2.65	17.66	87
	23-Aug	235	2.50	15.98	86
	26-Aug	238	2.10	12.72	81
	30-Aug	242	2.15	-	-
C82-6	29-Jun	180	1.20	15.03	85
	04-Jul	185	-	17.57	-
	07-Jul	188	1.60	16.36	85
	08-Jul	189	1.80	-	-
	10-Jul	191	2.00	-	-
	12-Jul	193	2.10	-	-
	14-Jul	195	2.20	18.28	88
	15-Jul	196	2.20	-	-
	19-Jul	200	2.30	-	-

Table A.1.2. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column Temp. (C)	Mean water column Cond. (μS/cm)
	21-Jul	202	2.15	17.13	88
	26-Jul	207	2.90	-	-
	28-Jul	209	2.50	18.85	88
	02-Aug	214	2.00	-	-
	06-Aug	218	1.90	-	-
	09-Aug	221	2.90	16.27	-
	13-Aug	225	2.10	-	-
	16-Aug	228	2.20	-	-
	20-Aug	232	2.05	17.57	88
	23-Aug	235	1.90	15.99	85
	26-Aug	238	1.80	12.76	80
	30-Aug	242	2.05	-	-
HS82-7	29-Jun	180	1.15	14.30	84
	02-Jul	183	1.10	-	-
	02-Jul	183	0.35	-	-
	04-Jul	185	0.45	17.50	-
	05-Jul	186	0.33	-	-
	05-Jul	186	0.55	-	-
	07-Jul	188	0.40	16.20	97
	08-Jul	189	0.30	-	-
	08-Jul	189	0.35	-	-
	08-Jul	189	0.50	-	-
	10-Jul	191	0.40	-	-
	12-Jul	193	0.37	-	-
	12-Jul	193	0.40	-	-
	12-Jul	193	0.33	-	-
	14-Jul	195	0.55	18.23	105
	15-Jul	196	0.60	-	-
	15-Jul	196	0.45	-	-
	15-Jul	196	0.45	-	-
	19-Jul	200	1.00	-	-
	19-Jul	200	1.00	-	-
	19-Jul	200	0.35	-	-
	21-Jul	202	0.40	16.72	110
	22-Jul	203	0.40	-	-
	22-Jul	203	0.47	-	-
	26-Jul	207	0.40	-	-
	28-Jul	209	0.55	18.56	113
	29-Jul	210	0.55	-	-
	29-Jul	210	0.39	-	-
	02-Aug	214	0.35	-	-
	02-Aug	214	0.60	-	-
	03-Aug	215	0.40	15.26	109
	06-Aug	218	0.40	-	-
	06-Aug	218	0.55	-	-
	09-Aug	221	0.60	-	-
	09-Aug	221	0.35	15.94	-
	13-Aug	225	0.65	-	-
	13-Aug	225	0.38	-	-
	16-Aug	228	0.80	-	-
	16-Aug	228	0.30	-	-
	20-Aug	232	0.65	17.51	124
	20-Aug	232	0.39	-	124
	23-Aug	235	0.50	15.92	123
	25-Aug	237	0.60	-	-
	25-Aug	237	0.30	-	-
	26-Aug	238	0.35	12.66	114
	30-Aug	242	0.45	-	-
OM82-8	29-Jun	180	1.30	14.30	84
	04-Jul	185	1.80	17.55	-
	07-Jul	188	1.65	16.44	85
	08-Jul	189	2.10	-	-
	10-Jul	191	2.20	-	-

Table A.1.2. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column	
				Temp. (C)	Cond. (µS/cm)
	12-Jul	193	3.20		-
	14-Jul	195	2.20	18.05	86
	15-Jul	196	3.00	-	-
	19-Jul	200	2.90	-	-
	21-Jul	202	2.30	17.17	85
	26-Jul	207	3.50	-	-
	28-Jul	209	3.50	18.56	86
	02-Aug	214	2.55	-	-
	03-Aug	215	3.25	15.43	78
	06-Aug	218	2.60	-	-
	09-Aug	221	2.70	16.24	-
	13-Aug	225	2.35	-	-
	16-Aug	228	2.00	-	-
	20-Aug	232	2.10	17.81	83
	23-Aug	235	2.00	16.10	81
	26-Aug	238	1.95	13.03	74
	30-Aug	242	2.30	-	-
L82-9	29-Jun	180	1.00	17.05	86
	04-Jul	185	1.20	-	-
	07-Jul	188	-	15.81	85
	08-Jul	189	0.95	-	-
	10-Jul	191	1.25	-	-
	14-Jul	195	1.30	18.21	88
	15-Jul	196	1.50	-	-
	19-Jul	200	1.25	-	-
	21-Jul	202	0.90	16.53	88
	26-Jul	207	1.30	-	-
	28-Jul	209	1.30	19.14	90
	02-Aug	214	1.60	-	-
	03-Aug	215	1.20	15.89	86
	06-Aug	218	1.80	-	-
	09-Aug	221	1.40	15.87	-
	13-Aug	225	1.40	-	-
	20-Aug	232	1.40	17.88	94
	23-Aug	235	1.40	15.93	91
	26-Aug	238	1.20	12.85	83
	30-Aug	242	1.30	-	-

Table A.1.3. Summary of physical conditions in the limnocorrals, 1983.

				Mean water column		
Limnocorral	Date	Day of year	Secchi (m)	Temp. (C)	Cond. (µS/cm)	Dissolved oxygen (mg/L)
DFM83-1	23-Jun	175	1.00	16.53	83	8.81
	30-Jun	182	0.50	16.85	83	7.04
	05-Jul	187	1.40	16.02	85	7.77
	07-Jul	189	1.60	-	-	-
	09-Jul	191	1.60	-	-	-
	10-Jul	192	1.60	-	-	-
	12-Jul	194	1.50	19.76	87	7.97
	14-Jul	196	1.25	-	-	-
	18-Jul	200	1.80	-	-	-
	20-Jul	202	1.90	19.72	88	7.08
	24-Jul	206	2.00	-	-	-
	26-Jul	208	1.75	-	-	-
	28-Jul	210	1.70	15.22	88	6.57
	31-Jul	213	1.80	-	-	-
	03-Aug	216	1.50	-	-	-
	04-Aug	217	1.20	21.21	91	6.39
	10-Aug	223	1.20	-	-	-
	11-Aug	224	1.30	21.13	92	5.91
	14-Aug	227	1.40	-	-	-
	19-Aug	232	1.00	-	-	-
	21-Aug	234	1.00	16.62	88	7.80
	22-Aug	235	-	17.45	88	8.86
	23-Aug	236	-	16.50	88	7.99
	25-Aug	238	0.80	18.08	89	8.31
SP83-2	23-Jun	175	1.20	16.55	84	8.67
	30-Jun	182	2.00	17.10	83	7.67
	05-Jul	187	1.10	16.06	86	5.36
	07-Jul	189	1.00	-	-	-
	09-Jul	191	1.05	-	-	-
	10-Jul	192	0.95	-	-	-
	12-Jul	194	0.75	19.61	91	1.37
	14-Jul	196	0.70	-	-	-
	18-Jul	200	0.80	-	-	-
	20-Jul	202	0.60	20.02	93	0.22
	24-Jul	206	0.50	-	-	-
	26-Jul	208	0.40	-	-	-
	28-Jul	210	0.60	20.50	96	0.28
	31-Jul	213	0.60	-	-	-
	03-Aug	216	0.40	-	-	-
	04-Aug	217	0.20	21.08	101	0.51
	10-Aug	223	0.40	-	-	-
	11-Aug	224	0.35	21.00	102	0.69
	14-Aug	227	0.45	-	-	-
	19-Aug	232	0.30	-	-	-
	21-Aug	234	-	16.72	99	0.62
	22-Aug	235	-	17.47	99	1.99
	23-Aug	236	-	16.40	98	0.48
	25-Aug	238	0.30	17.75	102	1.13
LM83-3	23-Jun	175	1.00	16.44	85	8.65
	30-Jun	182	1.60	16.89	73	7.90
	05-Jul	187	1.90	16.09	68	7.70
	07-Jul	189	2.20	-	-	-
	09-Jul	191	2.40	-	-	-
	10-Jul	192	2.10	-	-	-
	12-Jul	194	2.00	19.70	70	7.70
	14-Jul	196	1.90	-	-	-

Table A.1.3. Cont'd.

				Mean water column		
Limnocorral	Date	Day of year	Secchi (m)	Temp. (C)	Cond. (uS/cm)	Dissolved oxygen (mg/L)
	17-Jul	199	2.30	-	-	-
	20-Jul	202	1.90	19.64	72	6.80
	24-Jul	206	2.10	-	-	-
	26-Jul	208	1.80	-	-	-
	28-Jul	210	2.10	19.03	74	6.10
	31-Jul	213	2.20	-	-	-
	03-Aug	216	2.40	-	-	-
	04-Aug	217	2.40	19.35	77	6.57
	10-Aug	223	1.80	-	-	-
	11-Aug	224	2.30	21.09	79	6.92
	14-Aug	227	2.00	-	-	-
	19-Aug	232	2.00	-	-	-
	21-Aug	234	2.50	16.66	78	7.61
	22-Aug	235	-	17.36	78	8.14
	23-Aug	236	-	16.68	78	7.47
	25-Aug	238	2.30	18.07	80	8.31
OC83-4	23-Jun	175	1.00	16.66	84	8.43
	30-Jun	182	1.80	17.20	85	8.54
	05-Jul	187	1.80	15.97	86	8.50
	07-Jul	189	2.00	-	-	-
	09-Jul	191	2.30	-	-	-
	10-Jul	192	2.00	-	-	-
	12-Jul	194	2.10	19.78	88	8.65
	14-Jul	196	2.20	-	-	-
	17-Jul	199	1.90	-	-	-
	20-Jul	202	2.00	19.61	90	7.72
	24-Jul	206	2.00	-	-	-
	26-Jul	208	2.05	-	-	-
	28-Jul	210	2.20	19.09	89	7.44
	31-Jul	213	2.20	-	-	-
	03-Aug	216	2.90	-	-	-
	04-Aug	217	2.40	21.28	92	7.45
	10-Aug	223	2.20	-	-	-
	11-Aug	224	2.20	20.86	92	7.75
	13-Aug	226	2.40	-	-	-
	14-Aug	227	2.20	-	-	-
	19-Aug	232	2.00	-	-	-
	21-Aug	234	2.25	16.62	92	7.70
	22-Aug	235	-	17.36	91	7.85
	23-Aug	236	-	16.60	91	7.22
	25-Aug	238	2.00	18.03	93	8.81
SA83-5	23-Jun	175	1.20	16.41	84	8.90
	30-Jun	182	1.80	17.33	85	8.61
	05-Jul	187	2.00	15.94	87	8.92
	07-Jul	189	2.10	-	-	-
	09-Jul	191	2.40	-	-	-
	10-Jul	192	2.40	-	-	-
	12-Jul	194	2.60	19.62	91	8.49
	14-Jul	196	2.70	-	-	-
	18-Jul	200	2.60	-	-	-
	20-Jul	202	2.95	19.63	92	8.35
	24-Jul	206	1.80	-	-	-
	26-Jul	208	2.20	-	-	-
	28-Jul	210	2.00	18.94	94	7.50
	31-Jul	213	2.10	-	-	-
	03-Aug	216	2.20	-	-	-
	04-Aug	217	2.20	21.39	99	7.68

Table A.1.3. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column		
				Temp. (C)	Cond. (µS/cm)	Dissolved oxygen (mg/L)
	10-Aug	223	2.30	-	-	-
	11-Aug	224	2.20	20.89	101	7.46
	13-Aug	226	2.00	-	-	-
	14-Aug	227	2.10	-	-	-
	19-Aug	232	1.80	-	-	-
	21-Aug	234	2.25	16.45	103	7.74
	22-Aug	235	-	17.35	103	8.07
	23-Aug	236	-	16.56	103	7.66
	25-Aug	238	1.80	18.11	105	8.96
OM83-6	23-Jun	175	1.00	16.17	83	8.66
	30-Jun	182	1.80	17.31	84	8.14
	05-Jul	187	1.80	15.79	86	8.16
	06-Jul	188	2.00	-	-	-
	07-Jul	189	2.00	-	-	-
	09-Jul	191	2.45	-	-	-
	10-Jul	192	2.40	-	-	-
	12-Jul	194	2.30	19.85	89	7.83
	14-Jul	196	2.80	-	-	-
	17-Jul	199	2.65	-	-	-
	20-Jul	202	2.90	19.54	89	7.97
	24-Jul	206	2.15	-	-	-
	26-Jul	208	1.95	-	-	-
	28-Jul	210	2.80	18.80	88	7.51
	31-Jul	213	2.60	-	-	-
	03-Aug	216	3.20	-	-	-
	04-Aug	217	3.30	21.34	91	7.52
	10-Aug	223	3.30	-	-	-
	11-Aug	224	3.30	20.90	91	7.62
	13-Aug	226	2.70	-	-	-
	14-Aug	227	3.00	-	-	-
	19-Aug	232	2.95	-	-	-
	21-Aug	234	3.60	16.53	90	8.00
	22-Aug	235	-	17.40	90	7.92
	23-Aug	236	-	16.60	89	7.61
	25-Aug	238	3.30	18.04	92	8.11
LM83-7	23-Jun	175	0.90	16.48	85	8.82
	30-Jun	182	1.60	17.21	72	8.04
	05-Jul	187	1.00	15.85	70	7.66
	06-Jul	188	1.70	-	-	-
	07-Jul	189	1.95	-	-	-
	09-Jul	191	2.10	-	-	-
	10-Jul	192	2.05	-	-	-
	12-Jul	194	2.00	19.63	74	7.23
	14-Jul	196	2.00	-	-	-
	17-Jul	199	2.20	-	-	-
	20-Jul	202	2.10	19.53	74	7.00
	24-Jul	206	2.05	-	-	-
	26-Jul	208	1.50	-	-	-
	28-Jul	210	1.25	18.66	77	6.23
	01-Aug	214	1.80	-	-	-
	03-Aug	216	1.95	-	-	-
	04-Aug	217	2.20	21.56	81	6.78
	10-Aug	223	1.90	-	-	-
	11-Aug	224	2.00	20.95	83	6.88
	13-Aug	226	1.75	-	-	-
	14-Aug	227	2.10	-	-	-
	19-Aug	232	1.80	-	-	-

Table A.1.3. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column Temp. (C)	Cond. (µS/cm)	Dissolved oxygen (mg/L)
	21-Aug	234	1.80	16.38	82	7.94
	22-Aug	235	-	17.38	83	8.41
	23-Aug	236	-	16.60	82	7.76
	25-Aug	238	1.80	18.05	84	8.04
LMS83-8	23-Jun	175	1.00	16.34	84	8.53
	30-Jun	182	1.80	17.40	71	8.15
	05-Jul	187	0.60	15.82	69	7.95
	06-Jul	188	0.80	-	-	-
	07-Jul	189	1.00	-	-	-
	09-Jul	191	1.10	-	-	-
	10-Jul	192	1.20	-	-	-
	12-Jul	194	1.25	19.78	73	7.42
	14-Jul	196	1.05	-	-	-
	14-Jul	196	0.70	-	-	-
	17-Jul	199	1.20	-	-	-
	18-Jul	200	1.70	-	-	-
	18-Jul	200	0.50	-	-	-
	20-Jul	202	0.60	19.37	73	7.02
	20-Jul	202	1.05	-	-	-
	24-Jul	206	0.65	-	-	-
	24-Jul	206	1.30	-	-	-
	26-Jul	208	0.40	-	-	-
	26-Jul	208	1.10	-	-	-
	28-Jul	210	0.80	18.72	75	6.29
	31-Jul	213	0.30	-	-	-
	31-Jul	213	1.40	-	-	-
	03-Aug	216	0.95	-	-	-
	04-Aug	217	0.45	21.48	78	7.60
	04-Aug	217	1.10	-	-	-
	10-Aug	223	0.50	-	-	-
	10-Aug	223	1.20	-	-	-
	11-Aug	224	0.95	20.99	81	6.65
	13-Aug	226	1.30	-	-	-
	13-Aug	226	0.45	-	-	-
	14-Aug	227	0.90	-	-	-
	19-Aug	232	1.20	-	-	-
	19-Aug	232	0.40	-	-	-
	21-Aug	234	0.75	16.43	81	7.55
	22-Aug	235	0.30	-	-	-
	22-Aug	235	0.90	17.35	80	7.73
	23-Aug	236	-	16.68	80	7.31
	25-Aug	238	0.40	17.99	82	8.11
	25-Aug	238	0.95	-	-	-
L83-9	23-Jun	175	0.95	16.12	84	8.85
	30-Jun	182	1.60	17.76	85	8.54
	05-Jul	187	1.60	15.46	86	8.91
	06-Jul	188	1.10	-	-	-
	07-Jul	189	1.40	-	-	-
	09-Jul	191	1.10	-	-	-
	10-Jul	192	1.25	-	-	-
	12-Jul	194	1.20	19.19	89	8.06
	14-Jul	196	1.30	-	-	-
	17-Jul	199	1.40	-	-	-
	18-Jul	200	1.50	-	-	-
	20-Jul	202	1.70	19.95	89	8.12
	24-Jul	206	1.60	-	-	-
	26-Jul	208	1.80	-	-	-

Table A.1.3. Cont'd.

				Mean water column		
Limnocorral	Date	Day of year	Secchi (m)	Temp. (C)	Cond. (μS/cm)	Dissolved oxygen (mg/L)
	28-Jul	210	1.20	18.67	88	7.21
	31-Jul	213	1.60	-	-	-
	01-Aug	214	1.60	-	-	-
	03-Aug	216	1.80	-	-	-
	04-Aug	217	1.50	20.89	91	7.90
	10-Aug	223	1.65	-	-	-
	11-Aug	224	3.60	21.20	90	7.86
	13-Aug	226	1.40	-	-	-
	14-Aug	227	1.40	-	-	-
	19-Aug	232	1.45	-	-	-
	21-Aug	234	1.80	16.65	92	8.05
	22-Aug	235	-	16.97	-	-
	23-Aug	236	-	17.29	93	-
	25-Aug	238	1.85	17.94	94	8.00

Table A.1.4. Summary of physical conditions in the limnocorrals, 1984.

				Mean water column			
Limnocorral	Date	Day of year	Secchi (m)	Temp. (C)	Cond. (µS/cm)	pH	Dissolved Oxygen (mg/L)
LMN84-1	29-Jun	181	1.80	15.17	75.8	6.3	7.7
	05-Jul	187	1.90	17.81	75.3	6.6	7.3
	13-Jul	195	2.10	19.79	78.5	6.7	6.9
	20-Jul	202	2.20	19.32	82.7	6.7	6.6
	26-Jul	208	1.90	19.42	88.4	6.8	6.4
	03-Aug	216	1.60	21.37	89.2	6.2	5.8
	12-Aug	225	2.20	19.74	94.8	6.8	7.0
	17-Aug	230	1.30	18.71	96.0	6.8	6.6
	29-Aug	242	2.60	16.80	90.1	-	7.6
	04-Sep	248	3.00	13.40	94.5	-	8.1
	30-Sep	274	3.20	5.20	91.2	7.2	10.7
CN84-2	29-Jun	181	1.85	18.26	92.7	7.5	8.5
	05-Jul	187	1.70	17.83	92.3	7.4	8.2
	13-Jul	195	2.10	17.75	94.6	7.6	8.6
	20-Jul	202	1.60	19.17	96.5	7.5	8.9
	26-Jul	208	1.60	19.55	97.6	7.5	9.7
	03-Aug	216	1.70	21.42	101.0	7.4	7.9
	12-Aug	225	2.50	19.80	108.0	7.4	7.6
	17-Aug	230	1.30	18.68	109.0	7.3	7.9
	29-Aug	242	1.20	16.65	103.9	-	8.9
	04-Sep	248	1.00	13.35	107.2	-	9.5
	30-Sep	274	1.20	5.10	104.0	7.5	10.6
S84-3	29-Jun	181	1.85	15.70	92.6	7.3	8.0
	05-Jul	187	1.80	17.83	92.8	6.8	7.2
	13-Jul	195	2.10	17.87	94.9	7.0	7.3
	20-Jul	202	1.80	19.30	97.4	6.7	7.1
	26-Jul	208	1.60	19.55	98.0	6.3	7.7
	03-Aug	216	1.70	21.51	102.3	6.4	7.8
	12-Aug	225	2.20	19.86	109.9	6.9	6.0
	17-Aug	230	2.20	18.79	111.0	6.8	6.4
	29-Aug	242	1.80	16.69	104.6	-	8.6
	04-Sep	248	2.60	13.30	109.5	-	9.1
	30-Sep	274	2.90	5.10	104.3	7.6	10.4
SD84-4	29-Jun	181	1.15	18.35	97.0	7.6	8.3
	05-Jul	187	1.20	17.97	100.0	8.5	9.0
	13-Jul	195	1.80	19.84	106.3	8.7	8.4
	20-Jul	202	0.80	19.32	106.0	8.5	9.9
	26-Jul	208	0.80	19.07	113.7	8.1	10.7
	03-Aug	216	1.00	21.55	120.9	8.8	7.2
	12-Aug	225	0.80	19.86	131.3	8.7	8.2
	17-Aug	230	0.60	19.12	132.9	8.9	8.1
	29-Aug	242	0.45	16.70	128.8	-	9.6
	04-Sep	248	0.20	13.32	134.7	-	9.0
	30-Sep	274	0.80	5.20	129.0	8.6	11.0
LM84-5	29-Jun	181	1.90	18.00	74.1	6.2	7.2
	05-Jul	187	2.20	17.77	73.0	6.2	6.4
	13-Jul	195	2.20	19.88	83.4	6.5	6.7
	20-Jul	202	1.80	19.63	80.5	6.4	5.8
	26-Jul	208	1.80	19.84	82.6	5.8	5.8
	03-Aug	216	0.90	21.62	87.2	7.1	6.5
	12-Aug	225	1.25	19.84	92.7	6.8	5.6
	17-Aug	230	1.40	18.91	93.5	6.5	5.4
	29-Aug	242	1.42	16.65	87.9	-	6.7
	04-Sep	248	1.80	13.39	92.8	-	9.6
	30-Sep	274	2.40	5.10	89.0	7.1	9.6

Table A.1.4. Cont'd.

Limnocorral	Date	Day of year	Secchi (m)	Mean water column Temp. (C)	Cond. (µS/cm)	pH	Dissolved Oxygen (mg/L)
Hg84-6	29-Jun	181	2.10	18.50	93.5	7.5	8.1
	05-Jul	187	2.20	17.93	93.0	7.3	7.9
	13-Jul	195	2.20	19.74	95.1	7.6	8.3
	20-Jul	202	2.40	19.48	96.5	7.2	8.5
	26-Jul	208	2.00	19.68	97.0	7.4	8.9
	03-Aug	216	2.80	21.48	100.2	7.5	7.7
	12-Aug	225	2.70	20.03	105.5	7.6	7.7
	17-Aug	230	2.40	18.91	108.4	7.5	8.0
	29-Aug	242	2.00	16.60	102.7	-	9.2
	04-Sep	248	1.90	13.28	108.0	-	9.7
	30-Sep	274	2.45	5.10	103.1	7.7	10.6
C84-7	29-Jun	181	2.00	18.59	93.0	7.3	8.1
	05-Jul	187	2.05	18.03	93.0	7.3	7.9
	13-Jul	195	1.90	19.82	94.9	7.5	8.5
	20-Jul	202	2.00	19.46	96.9	7.0	8.9
	26-Jul	208	1.90	20.04	97.0	5.8	9.3
	03-Aug	216	2.30	21.58	100.0	7.4	7.8
	12-Aug	225	2.20	20.03	105.7	7.4	6.7
	17-Aug	230	2.00	18.87	108.9	7.2	7.6
	29-Aug	242	1.80	16.70	102.0	-	8.8
	04-Sep	248	1.60	13.33	106.6	-	9.6
	30-Sep	274	2.30	5.10	102.0	7.4	10.4
L84-8	29-Jun	181	1.40	17.00	92.0	7.4	8.6
	05-Jul	187	1.25	18.09	91.0	7.3	7.9
	20-Jul	202	1.20	19.16	93.4	7.4	8.8
	26-Jul	208	1.60	19.82	94.0	7.4	9.3
	03-Aug	216	1.90	21.85	98.0	6.9	5.0
	12-Aug	225	1.20	20.06	104.6	7.5	7.5
	17-Aug	230	1.20	18.97	105.7	7.3	7.7
	29-Aug	242	1.00	16.90	102.4	-	8.7
	04-Sep	248	1.00	13.77	107.0	-	9.3
	30-Sep	274	1.00	5.37	106.6	7.4	10.2

Appendix 2

Activity of radioisotopes in various fractions of water columns of limnocorrals, 1981-1984

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Appendix Table A.2.1. ^{203}Hg in the water column, 1981 54

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A.2.3. ^{203}Hg in the water column, 1983 57

A.2.4. ^{203}Hg in the water column, 1984 58

A.2.5. Tritium in the water column, 1981 59

A.2.6. Tritium in the water column, 1982 60

A.2.7. Tritium in the water column, 1983 61

A.2.8. Tritium in the water column, 1984 62

A.2.9. ^{75}Se in the water column, 1981 63

A.2.10. ^{134}Cs in the water column, 1981 65

A.2.11. ^{60}Co in the water column, 1981 67

A.2.12. ^{65}Zn in the water column, 1981 69

A.2.13. ^{22}Na in the water column, 1981 71

Table A.2.1. ^{203}Hg activity (dpm/L)in the water column; 1981 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
C81-1	Charcoal	6279	3919	1595	486	651
	Anion	5260	3160	998	881	205
	Cation	844	526	584	628	326
	Sulfide	3330	1460	584	628	326
	GFC	14544	10726	3867	2081	1156
	MP	3321	2333	1926	1170	421
	Netplankton	95	98	37	28	16
	Total activity	33674	22221	9591	5902	3100
	Dissolved (%)	47	41	39	44	49
	Particulate (%)	53	59	61	56	51
	% of time 0	100	66	28	18	9
LM81-2	Charcoal	6623	2709	1516	1563	695
	Anion	4833	3528	2126	1377	1349
	Cation	933	605	307	147	233
	Sulfide	3979	2944	1516	840	298
	GFC	14574	8609	2686	1326	1409
	MP	3133	2616	1830	4130	528
	Netplankton	72	70	56	67	174
	Total activity	34147	21081	10037	9449	4686
	Dissolved (%)	48	46	54	42	55
	Particulate (%)	52	54	46	58	45
	% of time 0	100	63	30	28	14
PN81-3	Charcoal	8700	5826	2209	1042	740
	Anion	3000	3195	1272	395	449
	Cation	372	316	63	-	-
	Sulfide	951	391	258	1956	314
	GFC	10158	10842	8812	5195	2730
	MP	2470	1628	1195	1088	3237
	Netplankton	100	207	123	91	100
	Total activity	25751	22405	13933	9767	7570
	Dissolved (%)	51	43	27	35	20
	Particulate (%)	49	57	73	65	80
	% of time 0	100	67	41	29	22
LS81-4	Charcoal	5365	4914	2130	809	237
	Anion	6530	3456	1170	616	30
	Cation	179	384	209	-	-
	Sulfide	2735	409	140	102	142
	GFC	8737	9798	4070	3847	1233
	MP	4174	1905	958	1053	1205
	Netplankton	60	112	56	40	37

Table A.2.1. Cont'd.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
	Total activity	27781	20977	8733	6467	2884
	Dissolved (%)	53	44	42	24	14
	Particulate (%)	47	56	58	76	86
	% of time 0	100	62	26	19	9
C81-5	Charcoal	9028	6047	2426	2016	1612
	Anion	4170	2088	1237	233	619
	Cation	1105	409	133	151	123
	Sulfide	2884	2542	253	140	516
	GFC	23453	9267	6621	5198	1274
	MP	2844	1651	588	1137	1370
	Netplankton	63	123	98	121	79
	Total activity	43547	22128	11356	8995	5593
	Dissolved (%)	39	50	36	28	51
	Particulate (%)	61	50	64	72	49
	% of time 0	100	66	34	27	17
HS81-6	Charcoal	10005	4240	2253	1726	895
	Anion	7705	3453	1337	381	286
	Cation	1033	651	170	0	119
	Sulfide	1377	1107	340	193	119
	GFC	8674	10058	4577	2842	1188
	MP	7184	4081	1784	2070	933
	Netplankton	58	79	40	42	28
	Total activity	35977	23591	10460	7212	3540
	Dissolved (%)	56	40	39	32	40
	Particulate (%)	44	60	61	68	60
	% of time 0	100	70	31	21	11
C81-7	Charcoal	11386	5435	2772	1293	1091
	Anion	6184	4244	1291	700	1147
	Cation	672	228	174	372	58
	Sulfide	547	484	207	326	279
	GFC	8847	9253	6116	4942	1716
	MP	2777	1349	595	819	2016
	Netplankton	126	170	193	67	237
	Total activity	30412	20993	11156	8451	6307
	Dissolved (%)	62	49	40	32	41
	Particulate (%)	38	51	60	68	59
	% of time 0	100	62	33	25	19

Table A.2.2. ^{203}Hg in the water column; 1982 limnocorral experiment.

Limnocorral	Fraction	Date (Day of Year)																					
		July 4 (185)	July 5 (186)	July 6 (187)	July 7 (188)	July 8 (189)	July 9 (190)	July 12 (193)	July 14 (195)	July 15 (196)	July 19 (200)	July 21 (202)	July 26 (207)	July 29 (210)	Aug 2 (214)	Aug 6 (218)	Aug 9 (221)	Aug 13 (225)	Aug 16 (228)	Aug 20 (232)	Aug 23 (235)	Aug 26 (238)	Aug 30 (242)
FM82-1	Total (dpm/mL)	65.0	61.4	59.6	55.6	54.6	50.0	37.4	34.6	30.6	20.9	19.4	17.2	14.4	12.0	10.8	10.8	10.7	8.5	5.9	6.2	5.7	4.5
	Dissolved (%)	70	65	65	59	63	61	58	61	65	65	69	63	54	55	61	50	55	56	36	41	52	53
	Particulate (%)	30	35	35	41	37	39	42	39	35	35	31	37	46	45	39	50	45	44	64	59	48	47
	% of time 0	100	94	92	86	84	77	58	53	47	32	30	26	22	18	17	17	16	13	9	10	9	7
LM82-3	Total (dpm/mL)	37.3	37.2	31.6	31.4	29.9	29.1	20.6	20.4	18.9	15.7	14.1	13.0	10.5	8.0	5.2	5.1	5.7	4.0	2.0	2.3	1.8	1.4
	Dissolved (%)	76	39	75	62	65	66	61	65	68	70	69	79	74	58	70	61	68	63	22	17	44	40
	Particulate (%)	24	61	25	38	35	34	39	35	32	30	31	21	26	42	30	39	32	37	78	83	56	60
	% of time 0	100	100	85	84	80	78	55	55	51	42	38	35	28	21	14	14	15	11	5	6	5	4
HM82-4	Total (dpm/mL)	49.6	45.9	40.6	38.9	39.5	38.5	26.9	25.6	24.0	19.9	18.5	14.7	11.9	8.8	5.2	5.0	5.0	3.7	1.2	2.1	2.3	1.9
	Dissolved (%)	74	64	69	65	67	67	80	65	67	56	54	62	51	49	56	39	48	50	0	36	44	44
	Particulate (%)	26	36	31	35	33	33	20	35	33	44	46	38	49	51	44	61	52	50	100	64	56	56
	% of time 0	100	93	82	79	80	78	54	52	48	40	37	30	24	18	10	10	10	7	2	4	5	4
OC82-5	Total (dpm/mL)	39.6	38.5	32.8	32.7	31.2	29.6	20.1	18.7	17.5	14.0	11.6	8.9	6.6	6.6	5.2	4.3	5.7	4.8	2.7	3.4	2.7	3.1
	Dissolved (%)	70	65	67	61	62	62	63	61	63	60	56		59	57	61	59	61	79	62	60	57	40
	Particulate (%)	30	35	33	39	38	38	37	39	37	40	44	100	41	43	39	41	39	21	38	40	43	60
	% of time 0	100	97	83	83	79	75	51	47	44	35	29	22	17	17	13	11	14	12	7	9	5	8
C82-6	Total (dpm/mL)	44.5	43.4	38.6	40.4	38.3	35.1	27.6	26.8	30.0	21.9	18.6	17.5	14.7	13.5	10.3	8.5	8.3	6.0	4.3	4.7	3.9	3.3
	Dissolved (%)	70	70	66	69	70	69	69	71	70	69	69	70	68	65	61	67	61	56	50	55	59	67
	Particulate (%)	30	30	34	31	30	31	31	29	30	31	31	30	32	35	39	33	39	44	50	45	41	33
	% of time 0	100	98	87	91	86	79	62	60	67	49	42	39	33	30	23	19	19	13	10	11	9	7
HS82-7	Total (dpm/mL)	46.3	43.8	39.9	41.8	37.8	36.0	25.4	25.8	24.0	17.1	14.9	14.4	10.7	10.3	7.2	5.8	5.7	3.8	3.1	3.0	2.9	2.4
	Dissolved (%)	68	60	66	58	56	57	47	52	53	62	53	42	46	47	52	51	48	50	40	55	55	50
	Particulate (%)	32	40	34	42	44	43	53	48	47	38	47	58	54	53	48	49	52	50	60	45	45	50
	% of time 0	100	95	86	90	82	78	55	56	52	37	32	31	23	22	16	13	12	8	7	6	6	5
OM82-8	Total (dpm/mL)	41.6	38.4	35.4	31.8	31.4	29.4	21.9	20.1	18.7	16.4	13.3	12.7	11.3	11.7	9.1	8.5	8.6	8.1	7.1	7.0	5.7	5.2
	Dissolved (%)	72	68	60	60	57	58	56	59	59	58	58	59	61	47	53	43	46	43	48	44	50	48
	Particulate (%)	28	32	40	40	43	42	44	41	41	42	42	41	39	53	47	57	54	57	52	56	50	52
	% of time 0	100	92	85	76	75	71	53	48	45	39	32	31	27	28	22	20	21	19	17	17	14	13

Table A.2.3. ^{203}Hg in the water column; 1983 limnocorral experiment.

Limnocorral	Fraction	Date (Day of Year)																		
		July 7 (188)	July 8 (189)	July 10 (191)	July 11 (192)	July 13 (194)	July 15 (196)	July 18 (199)	July 19 (200)	July 21 (202)	July 25 (206)	July 29 (210)	Aug 1 (213)	Aug 4 (216)	Aug 8 (220)	Aug 11 (223)	Aug 15 (227)	Aug 20 (232)	Aug 24 (236)	Aug 29 (241)
DFM83-1	Total (dpm/mL)	86.2	70.9	71.4	67.8	59.6	48.1	-	33.3	31.0	28.9	22.9	21.1	19.5	17.4	12.6	13.4	10.0	9.3	7.8
	Dissolved (%)	67	57	62	61	58	62	-	68	65	68	53	57	54	64	60	62	60	67	70
	Particulate (%)	33	43	38	39	42	38	-	32	35	32	47	43	46	36	40	38	40	33	30
	% of time 0	100	82	83	78	69	56	-	42	37	34	27	24	22	20	14	16	12	11	9
SP83-2	Total (dpm/mL)	63.2	49.8	49.2	49.2	46.0	43.0	-	31.4	29.9	28.0	24.8	24.1	20.5	20.5	16.1	14.6	11.2	9.1	7.3
	Dissolved (%)	65	60	37	36	40	31	-	32	35	50	44	38	35	29	36	29	31	35	51
	Particulate (%)	35	40	63	64	60	69	-	68	65	50	56	62	65	71	64	71	69	65	49
	% of time 0	100	79	77	77	73	67	-	53	51	44	39	38	32	33	26	23	18	14	12
LM83-3	Total (dpm/mL)	61.9	51.6	51.2	49.9	44.5	40.3	33.1	-	29.3	27.4	22.4	19.8	16.8	21.7	9.2	8.7	5.8	5.5	5.4
	Dissolved (%)	78	74	74	75	75	70	68	-	70	70	61	60	57	60	53	55	58	72	73
	Particulate (%)	22	26	26	25	25	30	32	-	30	30	39	40	43	40	47	45	42	28	27
	% of time 0	100	83	82	79	70	64	52	-	48	43	35	32	27	34	14	14	9	9	9
C83-4	Total (dpm/mL)	59.8	53.3	47.8	46.9	43.2	40.2	31.6	-	26.8	23.7	17.9	14.3	11.8	10.8	7.7	8.9	6.0	5.1	4.0
	Dissolved (%)	73	68	64	64	61	58	60	-	58	57	57	67	56	66	58	76	67	84	76
	Particulate (%)	27	32	36	36	39	42	40	-	42	43	43	33	44	34	42	24	33	16	24
	% of time 0	100	87	78	77	71	67	52	-	46	39	30	24	19	18	13	15	10	9	7
OAS83-5	Total (dpm/mL)	60.2	61.3	51.0	48.7	41.0	36.3	-	24.6	22.7	17.9	15.6	14.9	12.0	10.4	7.8	8.1	7.4	6.6	6.5
	Dissolved (%)	73	66	66	64	63	59	-	61	61	59	54	51	56	57	57	63	67	70	63
	Particulate (%)	27	34	34	36	37	41	-	39	39	41	46	49	44	43	43	37	33	30	37
	% of time 0	100	100	83	79	67	59	-	44	35	29	26	24	20	18	13	13	12	11	11
OM83-6	Total (dpm/mL)	79.2	57.5	49.3	46.0	41.1	35.1	30.9	-	25.8	22.7	17.9	17.5	11.6	13.2	11.4	9.9	7.4	7.3	6.7
	Dissolved (%)	67	65	68	66	66	69	71	-	75	69	59	67	62	70	69	75	76	80	82
	Particulate (%)	33	35	32	34	34	31	29	-	25	31	41	33	38	30	31	25	24	20	18
	% of time 0		100	85	81	72	61	54	-	46	39	31	30	20	23	20	17	13	13	12
LM83-7	Total (dpm/mL)	68.5	58.9	53.6	52.5	46.1	40.9	33.7	-	29.8	27.4	22.7	20.1	13.6	12.1	9.4	8.7	6.4	5.5	4.8
	Dissolved (%)	76	74	75	74	73	70	70	-	71	74	54	56	52	55	55	75	60	66	65
	Particulate (%)	24	26	25	26	27	30	30	-	29	26	46	44	48	45	45	25	40	34	35
	% of time 0	100	86	79	76	67	60	49	-	49	40	33	29	20	18	14	13	9	8	7
LMS83-8	Total (dpm/mL)	53.0	52.3	48.0	46.4	41.6	35.9	25.4	-	20.0	15.2	9.9	7.7	6.8	4.9	5.0	7.4	3.2	4.0	2.1
	Dissolved (%)	75	68	68	67	72	59	63	-	69	71	69	65	61	73	68	71	81	78	75
	Particulate (%)	25	32	32	33	28	41	37	-	31	29	31	35	39	27	32	29	19	22	25
	% of time 0	100	95	86	84	75	65	46	-	37	28	18	14	12	9	9	14	6	8	4

Table A.2.4. ^{203}Hg in the water column; 1984 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)																				
		June 27 (179)	June 29 (181)	July 2 (184)	July 5 (187)	July 9 (191)	July 13 (195)	July 16 (198)	July 19 (201)	July 23 (205)	July 26 (208)	July 31 (213)	Aug 3 (216)	Aug 6 (219)	Aug 12 (225)	Aug 15 (228)	Aug 17 (230)	Aug 21 (234)	Aug 26 (239)	Aug 29 (242)	Sept 4 (248)	Sept 30 (274)
SP84-3	Total (dpm/mL)	26.7	24.5	26.9	15.9	14.2	11.7	11.5	7.9	8.0	8.9	5.0	3.5	9.3	3.3	3.2	3.3	2.9	2.3	2.0	1.9	0.0
	Dissolved (%)	-	-	73	68	68	61	60	58	41	56	60	34	29	60	55	60	58	4	76	69	-
	Particulate (%)	-	-	27	32	32	39	40	42	59	44	40	66	71	40	45	40	42	96	24	31	-
	% of time 0	100	92	101	60	53	44	43	30	30	33	19	13	35	12	12	12	11	9	7	7	0
SD84-4	Total (dpm/mL)	20.1	15.9	21.9	10.8	10.5	9.4	12.8	6.6	5.9	5.5	2.4	2.6	5.9	2.8	5.2	2.9	4.5	2.9	3.4	2.8	0.8
	% of time 0	100	79	109	54	52	47	64	33	30	27	12	13	29	14	26	14	22	14	17	14	4
LM84-5	Total (dpm/mL)	39.9	20.0	24.5	11.2	9.4	8.0	10.0	6.4	4.5	3.3	6.3	2.6	3.4	0.9	0.9	1.0	0.9	2.4	0.8	2.2	0.0
	% of time 0	-	100	100	50	42	36	45	29	20	15	28	12	15	4	4	4	4	11	4	10	0
CHg84-6	Total (dpm/mL)	23.4	20.0	23.9	11.7	10.4	8.6	11.6	7.4	5.9	5.6	4.0	4.3	5.5	2.6	2.2	2.8	2.5	2.8	2.7	2.3	0.6
	% of time 0	100	85	102	50	44	37	50	32	25	24	17	18	24	11	9	12	11	12	12	10	3
C84-7	Total (dpm/mL)	24.3	19.3	23.4	11.2	12.2	7.9	10.8	5.9	5.1	5.6	2.6	2.4	5.9	3.0	1.4	3.2	2.5	2.4	1.6	2.0	0.3
	Dissolved (%)	-	-	59	63	57	63	67	68	64	68	66	60	53	50	52	50	55	48	80	50	-
	Particulate (%)	-	-	41	37	43	37	33	32	36	32	34	40	47	50	48	50	45	52	20	50	-
	% of time 0	100	79	96	46	50	33	44	24	21	23	11	10	24	12	6	13	10	10	7	8	1

Table A.2.5. Tritium in the water column (dpm/mL); 1981 limnocorral experiment.

Date	Day of year	Limnocorral						
		C81-1	LM81-2	PN81-3	LS81-4	C81-5	HS81-6	C81-7
June 21	172	1123	1117	1165	942	989	1001	992
June 23	174	1256	-	1155	-	1019	-	1019
June 24	175	-	1012	-	880	-	874	-
July 1	182	1083	1040	976	896	906	933	925
July 7	188	1145	1084	1062	1025	1026	1067	1053
July 10	191	1328	1225	1244	1161	1169	1226	1179
July 19	200	1089	996	1046	970	961	1016	1004
July 24	205	1056	1000	991	880	908	911	935
July 28	209	1002	969	965	856	880	894	907
Aug 3	215	998	927	979	825	921	932	958
Aug 15	227	991	963	974	883	903	893	919
Aug 24	236	868	842	845	769	768	744	809

Table A.2.6. Tritium in the water column (dpm/mL); 1982 limnocorral experiment.

Date	Day of year	Limnocorral							
		FM82-1	SC82-2	LM82-3	HM82-4	OC82-5	C82-6	HS82-7	OM82-8
July 4	185	1221	-	709	935	758	856	879	778
July 5	186	1218	-	731	988	785	911	918	782
July 6	187	1284	-	741	980	779	889	926	801
July 7	188	1276	965	796	1063	789	909	929	795
July 8	189	1174	925	739	966	748	907	915	951
July 9	190	1141	-	720	910	687	846	851	761
July 12	193	1153	916	719	907	648	832	881	753
July 14	195	1111	910	721	898	632	824	844	740
July 15	196	1121	897	691	899	619	826	856	722
July 19	200	1042	896	704	904	603	831	866	752
July 21	202	1048	912	738	914	605	849	878	718
July 26	207	984	854	669	849	535	801	846	726
July 29	210	1131	913	707	884	518	836	835	711
Aug 2	214	935	869	673	862	518	864	895	739
Aug 6	218	870	716	549	714	369	653	677	582
Aug 9	221	848	829	633	837	437	826	846	723
Aug 13	225	843	846	663	827	426	808	804	671
Aug 16	228	829	817	668	804	1018	736	783	639
Aug 20	232	824	830	629	816	388	765	776	676
Aug 23	235	868	860	650	823	405	793	819	693
Aug 26	238	863	846	662	870	374	805	832	716
Aug 30	242	885	864	679	834	366	829	813	674

Table A.2.7. Tritium in the water column (dpm/mL); 1983 limnocorral experiment.

Date	Day of year	Limnocorral							
		DFM83-1	SP83-2	LM83-3	C83-4	OAS83-5	OM83-6	LM83-7	LMS83-8
July 7	188	1198	867	921	1058	924	1324	1003	818
July 8	189	1066	756	766	820	885	896	901	752
July 10	191	1145	812	789	824	891	896	885	775
July 11	192	1188	815	801	833	887	882	904	751
July 13	194	1179	838	841	855	921	864	893	782
July 15	196	1237	835	838	889	933	833	899	768
July 18	199	-	-	773	779	-	781	851	746
July 19	200	-	-	-	-	935	-	-	-
July 21	202	1214	859	842	889	940	861	935	833
July 25	206	1196	844	851	877	923	796	894	784
July 29	210	1056	761	793	820	846	763	811	734
Aug 1	213	1072	725	800	782	826	743	791	712
Aug 4	216	1065	657	778	756	844	719	774	703
Aug 8	220	1009	660	748	774	815	713	776	724
Aug 11	223	922	602	707	704	761	689	739	606
Aug 15	227	1001	664	747	776	728	696	758	678
Aug 20	232	892	611	689	708	721	652	707	613
Aug 24	236	871	572	702	718	704	653	678	645
Aug 29	241	886	572	645	654	675	612	651	617

Table A.2.8. Tritium in the water column (dpm/mL); 1984 limnocorral experiment.

Date	Day of year	Limnocorral						
		LMN84-1	CN84-2	SP84-3	SD84-4	LM84-5	CHg84-6	C84-7
June 27	179	44	48	36	29	44	35	35
June 29	181	54	53	70	61	71	67	69
July 2	184	63	64	62	56	69	58	69
July 5	187	74	67	59	54	63	59	64
July 9	191	56	66	67	56	68	57	58
July 13	195	68	58	50	56	66	58	57
July 16	198	64	63	61	67	72	64	66
July 19	201	56	57	59	54	67	62	63
July 23	205	75	63	65	52	65	61	60
July 26	208	60	50	29	48	61	57	53
July 31	213	45	43	46	46	49	43	43
Aug 3	216	36	26	31	24	30	36	31
Aug 6	219	136	77	72	65	76	70	71
Aug 12	225	77	40	48	43	49	38	29
Aug 15	228	58	46	54	41	53	51	67
Aug 17	230	56	40	49	46	49	42	45
Aug 21	234	34	31	51	48	63	58	62
Aug 26	239	65	38	46	49	60	54	57
Aug 29	242	56	31	51	54	71	61	63
Sept 4	248	60	27	52	50	63	57	63
Sept 30	274	51	16	50	40	53	57	63

Table A.2.9. ^{75}Se in the water column (dpm/L); 1981 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
C81-1	Charcoal	2033	2164	2233	2495	3978
	Anion	1597	2248	2163	1835	2263
	Cation	53	141	114	135	159
	Sulfide	19	16	50	57	112
	GFC	5030	2240	676	822	710
	MP	958	561	275	371	279
	Netplankton	52	86	33	17	20
	Total activity	9742	7457	5545	5731	7522
	Dissolved (%)	38	61	82	79	87
	Particulate (%)	62	39	18	21	13
	% of time 0	100	77	57	59	77
LM81-2	Charcoal	1521	2143	2156	1681	1660
	Anion	1488	1911	1759	2188	2195
	Cation	221	119	126	191	45
	Sulfide	64	72	14	0	83
	GFC	5148	1458	553	469	458
	MP	929	410	889	406	170
	Netplankton	36	54	50	39	51
	Total activity	9408	6166	5547	4974	4662
	Dissolved (%)	35	69	73	82	85
	Particulate (%)	65	31	27	18	15
	% of time 0	100	63	57	51	48
PN81-3	Charcoal	1652	3144	4122	3128	3247
	Anion	1397	2322	1891	2131	2266
	Cation	0	90	0	0	61
	Sulfide	178	0	0	190	130
	GFC	3303	1678	944	1139	1051
	MP	1413	506	216	131	931
	Netplankton	59	88	56	65	65
	Total activity	8002	7828	7228	6785	7751
	Dissolved (%)	40	71	83	80	74
	Particulate (%)	60	29	17	20	26
	% of time 0	100	80	74	70	80
LS81-4	Charcoal	841	2163	3431	3061	3019
	Anion	1791	2088	1972	1725	2138
	Cation	95	0	0	0	0
	Sulfide	38	0	0	103	125
	GFC	2966	1953	713	1272	738
	MP	1866	766	500	491	394
	Netplankton	22	59	22	50	81

Table A.2.9. Cont'd.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
	Total activity	7617	7028	6638	6702	6494
	Dissolved (%)	36	60	81	73	81
	Particulate (%)	64	40	19	27	19
	% of time 0	100	72	68	69	67
C81-5	Charcoal	1303	2803	3775	5009	3263
	Anion	2028	1806	2347	681	2600
	Cation	138	0	0	106	166
	Sulfide	138	0	0	88	122
	GFC	80794	1844	794	1178	397
	MP	1628	644	188	278	450
	Netplankton	21	61	33	109	0
	Total activity	86049	7158	7137	7449	6997
	Dissolved (%)	4	64	86	79	88
	Particulate (%)	96	36	14	21	12
	% of time 0	100	73	73	76	72
HS81-6	Charcoal	1769	2238	4116	3944	3363
	Anion	2247	2003	1931	769	1431
	Cation	150	75	109	0	0
	Sulfide	0	0	0	103	191
	GFC	2831	2247	959	928	600
	MP	2691	1228	813	447	450
	Netplankton	21	64	23	77	36
	Total activity	9688	7791	7928	6191	6034
	Dissolved (%)	43	55	78	78	83
	Particulate (%)	57	45	22	22	17
	% of time 0	100	80	81	64	62
C81-7	Charcoal	1631	2169	4603	4013	2850
	Anion	1444	2544	1913	1244	3144
	Cation	0	103	0	0	416
	Sulfide	0	0	184	0	116
	GFC	3044	2178	769	897	638
	MP	1641	572	178	338	497
	Netplankton	46	100	71	45	109
	Total activity	7759	7566	7647	6491	7659
	Dissolved (%)	40	64	88	81	85
	Particulate (%)	60	36	12	19	15
	% of time 0	100	78	78	67	79

Table A.2.10. ^{134}Cs in the water column (dpm/L); 1981 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
C81-1	Charcoal	1091	1228	1014	915	647
	Anion	19	0	0	0	0
	Cation	6609	5014	1544	900	350
	Sulfide	0	0	0	0	0
	GFC	2902	2804	904	790	373
	MP	277	435	307	244	85
	Netplankton	13	15	7	10	4
	Total activity	10911	9495	3777	2859	1460
	Dissolved (%)	71	66	68	63	68
	Particulate (%)	29	34	32	37	32
	% of time 0	100	87	35	26	13
LM81-2	Charcoal	1251	1029	416	154	179
	Anion	0	25	0	0	0
	Cation	11736	8023	1592	1212	1064
	Sulfide	0	0	28	0	0
	GFC	2169	1544	408	228	261
	MP	104	211	398	212	42
	Netplankton	9	10	4	7	15
	Total activity	15269	10843	2845	1813	1562
	Dissolved (%)	85	84	72	75	80
	Particulate (%)	15	16	28	25	20
	% of time 0	100	71	19	12	10
PN81-3	Charcoal	1288	1408	1359	603	508
	Anion	0	0	0	0	0
	Cation	6106	5977	2634	2889	2764
	Sulfide	0	0	0	0	0
	GFC	1579	1576	831	805	778
	MP	204	165	63	116	292
	Netplankton	8	17	8	19	23
	Total activity	9186	9143	4895	4431	4364
	Dissolved (%)	81	81	82	79	75
	Particulate (%)	19	19	18	21	25
	% of time 0	100	100	53	48	48
LS81-4	Charcoal	419	662	213	0	264
	Anion	0	0	0	0	0
	Cation	4490	3553	722	444	259
	Sulfide	87	815	282	208	0
	GFC	4731	3736	815	861	801
	MP	1157	468	389	500	625
	Netplankton	9	14	5	9	5

Table A.2.10. Cont'd.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
	Total activity	10894	9247	2426	2023	1954
	Dissolved (%)	46	54	50	32	27
	Particulate (%)	54	46	50	68	73
	% of time 0	100	85	22	19	18
C81-5	Charcoal	505	1000	505	1185	435
	Anion	0	0	0	0	0
	Cation	5625	4588	2236	1727	2319
	Sulfide	0	0	0	0	0
	GFC	1190	1264	356	690	713
	MP	148	120	134	88	380
	Netplankton	5	10	9	17	16
	Total activity	7473	6982	3240	3706	3863
	Dissolved (%)	82	80	85	79	71
	Particulate (%)	18	20	15	21	29
	% of time 0	100	93	43	50	52
HS81-6	Charcoal	398	204	134	0	0
	Anion	0	111	130	0	0
	Cation	3116	2171	569	384	310
	Sulfide	88	88	0	0	0
	GFC	6792	4718	1421	884	431
	MP	2880	2120	907	625	375
	Netplankton	15	160	5	6	14
	Total activity	13288	9572	3167	1900	1130
	Dissolved (%)	27	27	26	20	27
	Particulate (%)	73	73	74	80	73
	% of time 0	100	72	24	14	9
C81-7	Charcoal	903	1074	1426	537	505
	Anion	0	0	0	0	0
	Cation	7273	6759	2833	3190	3370
	Sulfide	0	0	0	0	0
	GFC	1546	1296	583	838	810
	MP	181	134	116	130	366
	Netplankton	12	12	51	19	296
	Total activity	9915	9275	5010	4713	5347
	Dissolved (%)	82	84	85	79	72
	Particulate (%)	18	16	15	21	28
	% of time 0	100	94	51	48	54

Table A.2.11. ^{60}Co in the water column (dpm/L); 1981 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
C81-1	Charcoal	4473	5114	3681	3874	4504
	Anion	1747	2702	1953	1215	1458
	Cation	1598	1113	442	293	477
	Sulfide	104	0	0	285	0
	GFC	70935	35465	5631	3098	1259
	MP	854	1156	506	1170	314
	Netplankton	170	147	30	46	32
	Total activity	79881	45698	12243	9981	8044
	Dissolved (%)	10	20	50	57	80
	Particulate (%)	90	80	50	43	20
	% of time 0	100	57	15	12	10
LM81-2	Charcoal	1102	1368	1269	1181	1020
	Anion	328	786	700	768	1092
	Cation	404	308	354	171	304
	Sulfide	0	0	0	0	0
	GFC	74190	26434	5592	1591	2544
	MP	351	438	5276	300	240
	Netplankton	214	104	29	40	135
	Total activity	76589	29438	13220	4052	5335
	Dissolved (%)	2	8	18	52	45
	Particulate (%)	98	92	82	48	55
	% of time 0	100	38	17	5	7
PN81-3	Charcoal	17838	19627	27825	22610	26058
	Anion	11557	16722	13381	12629	16103
	Cation	5696	2835	1825	2381	4000
	Sulfide	0	0	0	487	0
	GFC	23124	21711	9412	5299	5175
	MP	1485	1093	948	794	4216
	Netplankton	209	326	85	108	109
	Total activity	59908	62313	53476	44308	55662
	Dissolved (%)	59	63	80	86	83
	Particulate (%)	41	37	20	14	17
	% of time 0	100	104	89	74	93
LS81-4	Charcoal	8160	10763	9969	7021	6041
	Anion	6680	7918	5309	3247	3629
	Cation	11062	2454	948	629	1093
	Sulfide	0	0	0	0	124
	GFC	32804	29784	10918	11278	6024
	MP	1629	1505	1258	2010	1237
	Netplankton	98	196	72	104	72

Table A.2.11. Cont'd.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
	Total activity	60433	52619	28474	24290	18220
	Dissolved (%)	43	40	57	45	60
	Particulate (%)	57	60	43	55	40
	% of time 0	100	87	47	40	30
C81-5	Charcoal	6619	13165	16691	21670	11866
	Anion	4485	5412	8041	742	7237
	Cation	7062	1794	2113	299	2711
	Sulfide	0	0	0	0	124
	GFC	45010	32113	12814	12041	7928
	MP	1082	1495	753	2052	2258
	Netplankton	101	292	179	178	89
	Total activity	64359	54271	40592	36982	32212
	Dissolved (%)	28	38	66	61	68
	Particulate (%)	72	62	34	39	32
	% of time 0	100	84	63	57	50
HS81-6	Charcoal	10753	6928	6289	4701	1155
	Anion	4113	4567	2732	691	1134
	Cation	7505	2216	753	0	351
	Sulfide	0	0	0	0	0
	GFC	43794	31485	9268	5454	2485
	MP	3722	2278	1041	1021	546
	Netplankton	115	140	35	58	56
	Total activity	70002	47614	20118	11924	5726
	Dissolved (%)	32	29	49	45	46
	Particulate (%)	68	71	51	55	54
	% of time 0	100	68	29	17	8
C81-7	Charcoal	13072	11144	22103	18856	11103
	Anion	3392	9299	6969	3464	10216
	Cation	3680	7000	1072	402	2505
	Sulfide	0	0	0	0	144
	GFC	38959	32619	11619	15082	7680
	MP	1330	1361	608	2021	5031
	Netplankton	202	285	270	116	1031
	Total activity	60635	61707	42641	39941	37711
	Dissolved (%)	33	44	71	57	64
	Particulate (%)	67	56	29	43	36
	% of time 0	100	102	70	66	62

Table A.2.12. ^{65}Zn in the water column (dpm/L); 1981 limnocorral experiment.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
C81-1	Charcoal	2964	3496	0	3035	1299
	Anion	182	159	164	138	114
	Cation	591	866	114	121	130
	Sulfide	47	0	0	182	64
	GFC	8543	6337	1830	0	0
	MP	299	531	382	0	0
	Netplankton	42	82	23	0	25
	Total activity	12669	11471	2513	3476	1631
	Dissolved (%)	30	39	11	100	98
	Particulate (%)	70	61	89	0	2
	% of time 0	100	91	20	27	13
LM81-2	Charcoal	7119	4229	1634	733	323
	Anion	106	191	122	116	135
	Cation	2832	855	332	188	134
	Sulfide	42	0	0	48	34
	GFC	3419	2102	781	0	0
	MP	105	76	1820	162	55
	Netplankton	16	25	20	0	48
	Total activity	13639	7476	4709	1247	729
	Dissolved (%)	74	71	44	87	86
	Particulate (%)	26	29	56	13	14
	% of time 0	100	55	35	9	5
PN81-3	Charcoal	2044	2139	1191	816	564
	Anion	168	588	279	273	275
	Cation	350	288	91	134	152
	Sulfide	55	0	0	328	33
	GFC	7596	6623	3850	0	0
	MP	480	388	261	171	0
	Netplankton	73	179	73	0	102
	Total activity	10767	10203	5744	1722	1126
	Dissolved (%)	24	30	27	90	91
	Particulate (%)	76	70	73	10	9
	% of time 0	100	95	53	16	10
LS81-4	Charcoal	1481	1538	663	418	275
	Anion	341	277	125	125	121
	Cation	916	368	59	89	55
	Sulfide	29	21	0	0	54
	GFC	7338	6014	1234	0	0
	MP	879	589	407	530	0
	Netplankton	30	84	20	0	38

Table A.2.12. Cont'd.

Limnocorral	Fraction	Date (day of year)				
		July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
	Total activity	11013	8891	2507	1163	543
	Dissolved (%)	25	25	34	54	93
	Particulate (%)	75	75	66	46	7
	% of time 0	100	81	23	11	5
C81-5	Charcoal	1845	2175	1391	1221	813
	Anion	338	254	202	73	200
	Cation	989	257	132	100	166
	Sulfide	63	0	0	45	70
	GFC	5754	5657	2720	0	0
	MP	371	496	214	373	0
	Netplankton	26	80	55	0	36
	Total activity	9385	8919	4714	1813	1284
	Dissolved (%)	34	30	37	79	97
	Particulate (%)	66	70	63	21	3
	% of time 0	100	95	50	19	14
HS81-6	Charcoal	1654	1098	521	307	200
	Anion	220	180	227	88	82
	Cation	570	427	189	88	84
	Sulfide	0	0	0	70	88
	GFC	7952	6098	1891	0	0
	MP	1909	1804	977	818	0
	Netplankton	28	90	17	0	26
	Total activity	12332	9698	3823	1370	480
	Dissolved (%)	20	18	25	40	94
	Particulate (%)	80	82	75	60	6
	% of time 0	100	79	31	11	4
C81-7	Charcoal	3220	2073	1498	1252	730
	Anion	182	491	132	132	248
	Cation	371	366	82	88	145
	Sulfide	0	0	0	57	59
	GFC	5971	6813	2413	0	0
	MP	338	327	182	314	284
	Netplankton	0	139	100	0	330
	Total activity	10082	10209	4407	1843	1796
	Dissolved (%)	37	29	39	83	66
	Particulate (%)	63	71	61	17	34
	% of time 0	100	101	44	18	18

Table A.2.13. ^{22}Na in the water column (dpm/L); 1981 limnocorral experiment.

		Date (day of year)				
Limnocorral	Fraction	July 3 (184)	July 7 (188)	July 19 (200)	Aug 2 (214)	Aug 23 (235)
LS81-4	Charcoal	0	0	0	52	0
	Anion	0	0	0	0	0
	Cation	1261	1359	1214	0	1277
	Sulfide	0	0	0	0	0
	GFC	0	0	0	0	0
	MP	0	0	0	0	0
	Netplankton	0	0	0	0	0
	Total activity	1261	1359	1214	52	1277
	Dissolved (%)	100	100	100	100	100
	Particulate (%)	0	0	0	0	0
	% of time 0	100	108	96	4	101

Appendix 3

^{203}Hg and total mercury concentrations in fish from limnocorrals, 1981-1984

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Table A.3.1. "Time zero" yellow perch and emerald shiner data, 1981. Total mercury concentration was not determined for emerald shiner.

		Whole fish		Muscle
Date sampled	Fish no.	Total length (mm)	Round wt (g)	Total Hg (µg/g)
Yellow Perch				
June 30	1	49	1.0	
	2	55	1.3	
	3	51	1.0	
	4	54	1.2	
	5	49	0.9	
	6	51	0.9	
	7	46	0.6	
	8	50	1.0	
	9	50	1.0	
	10	50	1.1	
	11	48	0.7	
	12	51	1.0	
	13	53	1.0	
	14	51	1.0	
	15	49	0.7	
	16	51	1.0	
	17	50	1.0	
	18	52	1.1	
	19	no data		
	20	55	1.2	
	21	50	1.0	
	22	53	1.1	
	23	53	1.2	
	24	52	1.1	
	25	54	1.1	
	26	53	1.2	
	27	55	1.3	
	28	56	1.4	
	29	51	1.1	
	30	51	1.1	
	31	53	1.4	
	32	55	1.3	
	33	47	0.8	
	34	49	1.0	
	35	50	1.1	
	36	44	0.6	
	37	54	1.2	
	38	53	1.3	
July 1	39	52	1.0	0.090
	40	49	0.9	
	41	52	0.9	
	42	49	0.6	
	43	50	1.0	
	44	51	1.1	
	45	54	1.2	
Yellow Perch				
July 1	46	46	0.7	
	47	48	0.8	
	48	48	0.8	
	49	49	0.9	
	50	49	0.9	
	51	53	1.3	0.090
	52	55	1.3	
	53	50	0.9	
	54	51	1.1	
	55	54	1.2	
	56	49	0.8	
	57	49	0.8	
	58	51	0.9	
	59	47	0.6	
	60	51	0.9	
	61	48	0.8	
	62	51	1.1	
	63	49	0.7	
	64	53	1.1	
	65	54	1.3	0.130
	66	51	0.9	
	67	51	1.1	
	68	49	0.7	
	69	48	0.7	
	70	53	1.2	
	71	50	1.0	0.080
	72	50	1.1	0.070
	73	47	0.7	
	74	53	1.2	
	75	52	1.1	0.090
	76	48	1.0	
	77	49	1.0	
	78	54	1.5	
	79	47	0.6	
	80	52	1.1	
	81	53	1.4	
	82	53	1.2	
	83	54	1.2	
	84	47	1.0	
	85	49	0.9	
	86	51	1.1	
	87	54	1.4	
	88	50	1.0	
	89	50	1.0	
	90	47	0.8	
Yellow Perch				
July 1	91	54	1.2	
	92	49	1.0	
	93	51	0.9	
	94	49	1.0	
	95	52	1.1	
	96	49	1.0	
	97	47	0.9	
	98	49	0.9	
	99	55	1.3	
	100	50	0.9	
July 4	101	54	1.4	
	102	49	1.0	
	103	55	1.4	
	104	49	0.7	
	105	53	1.2	
	106	52	1.2	
	107	47	0.8	
	108	56	1.5	
	109	52	1.2	
	110	50	1.0	
	111	54	1.3	
	112	54	1.1	
	113	52	1.1	
	114	53	1.1	
Emerald Shiner				
June 30	1	75	3.0	
	2	76	2.6	
	3	82	3.2	
	4	77	3.2	
	5	81	3.7	
	6	76	2.7	
	7	72	2.4	
	8	71	2.3	
	9	74	2.5	
	10	74	2.2	
	11	80	2.7	
	12	76	2.4	
	13	69	2.1	
	14	78	2.5	
	15	79	2.6	
	16	76	2.6	
	17	68	1.9	
Emerald Shiner				
June 30	18	78	2.7	
	19	74	2.2	
	20	76	2.7	
	21	75	2.5	
	22	74	2.3	
	23	79	3.0	
	24	75	2.6	
	25	84	3.7	
	26	75	2.2	
	27	76	2.5	
	28	78	2.9	
	29	69	2.0	
	30	72	2.1	
	31	77	2.2	
	32	76	2.5	
	33	68	2.0	
	34	72	1.8	
	35	77	2.4	
	36	79	2.7	
	37	79	2.9	
	38	75	2.2	
	39	74	2.2	
	40	74	2.1	
	41	72	2.2	
	42	78	2.6	
	43	77	2.7	
	44	75	2.1	
	45	78	2.9	
	46	72	2.2	
	47	75	2.2	
	48	74	2.4	
	49	67	1.8	
	50	81	3.0	
July 4	51	75	2.7	
	52	78	3.7	
	53	78	2.9	
	54	79	3.5	
	55	83	3.3	
	56	76	2.6	
	57	74	2.4	
	58	78	3.1	
	59	69	2.2	
	60	83	4.2	
	61	75	2.7	

Table A.3.2. Mercury content of yellow perch and emerald shiners from CR1-1, a sediment-bottomed control limnocorral, 1981.

Species	Date(s) sampled	Fish no.	Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
			Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	001	55	1.6	1.51	821	20987	0.043												
		002	54	1.4	1.29	500	12781	0.053												
		003	57	1.7	1.51	510	13037	0.040												
		004	52	1.2	1.04	581	14852	0.044												
		005	50	1.0	1.88	812	20757	0.023												
		006	54	1.5	1.41	667	17050	0.05_				These fish not filleted								
	July 24,26	043	67	3.0	2.83	476	12168	0.033												
		044	62	2.5	2.33	552	14110	0.032												
		045	61	2.5	2.23	525	13420	0.029												
		046	65	2.8	2.63	437	11171	0.039												
		047	61	2.4	2.18	535	13676	0.026												
	Aug 2,3	085		3.9					1.82	208	5317	0.027	196926			1.68	653	16692	422	10787
		087	75	4.3					2.01	330	8436			7977	95	1.83	704	17996	508	12986
		089		4.2					2.02	337	8615	0.036	239306			1.76	648	16590	482	12321
		091		3.1					1.30	340	8691	0.019	457421			1.35	439	11222	390	9969
		093	75	4.5					1.98	353	9024	0.016	564000			2.07	715	18277	538	13753
		095	79	3.6					1.72	498	12730			10310	81	1.78	866	22137	685	17510
		097		3.8					1.72	314	8027	0.078	102910			1.69				
		099		3.9					1.87	370	9458			9076	96	1.59	499	12756	429	10966
		101		3.2					1.44	384	9816	0.029	338483			1.44	530	13548	457	11682
	Aug 24,25	300	75	4.5					1.93	482	12321			8966	73	2.26	462	11810	471	12040
		302	87	6.9					2.77	460	11759			12257	104	3.64	417	10660	436	11145
		304	85	7.7					3.13	477	12193			12134	100	3.97	446	11401	460	11759
Emerald Shiner	Aug 24,25	378	82	4.0					1.96	455	11631					1.39	689	17612	552	14110
		380	81	4.1					1.81	359	9177					1.41	594	15184	462	11810
		382	80	4.2					1.89	598	15286			18700	122	1.25	691	17664	635	16232
		384	81	4.1					1.87	479	12244					1.39	857	21907	640	16360
		386	76	3.7					1.60	414	10583					1.33	649	16590	521	13318
		388	82	4.3					1.87	413	10583					1.44	729	18635	551	14085
		390	78	3.5					1.65	611	15619					1.41	891	22776	740	18916
		392	80	4.4					1.83	486	12423					1.83	424	10838	455	11631
		394	78	4.1					1.67	477	12193			13339	109	1.52	836	21370	648	16564
		396	81	4.1					1.14	785	20066					1.54	544	13906	647	16539
		398	76	3.8					1.85	471	12040			14965	124	1.26	685	17510	558	14264
		400							1.90	751	19197					1.58	751	19197	751	19197
		402	73	3.3					1.55	461	11784					1.13	915	23390	652	16667
		404	80	4.6					1.14	798	20399					1.59	488	12474	617	15772

Note: Total length not taken when caudal fin was broken.

Table A.3.3. Mean mercury content of yellow perch and emerald shiners from C81-1, a sediment-bottomed control limnocorral, 1981. (For sample sizes, see Table A.3.2).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30-July 4	Time 0	51	1.0								0.090								
	July 10,11	001-006	54	1.4	1.4	649	16577	0.043												
	July 24,26	043-047	63	2.6	2.4	505	12909	0.032												
	Aug 2,3	085-101	76	3.8					1.76	348	8902	0.034	316508	9121	91	1.69	632	16152	489	12497
	Aug 24,25	300-304	82	6.4					2.61	473	12091			11119	92	3.29	442	11290	456	11648
Emerald Shiner	June 30-July 4	Time 0	76	2.6																
	Aug 24,25	378-404	79	4.0					1.70	540	13802			15668	118	1.43	696	17790	602	15390

Table A.3.4. Mercury content of yellow perch and emerald shiners from LM81-2, a sediment-bottomed limnocorral with added (low) moss-peat, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (ug/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (ug/g)	Specific activity (dpm/ug)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	007	56	1.7	1.5	567	14494	0.054												
		008	53	1.4	1.3	876	22393	0.034												
		009	54	1.5	1.4	413	10557	0.032												
		010	55	1.3	1.2	656	16769	0.049												
		011	55	1.2	1.1	306	7822	0.050												
		012	54	1.6	1.4	729	18635	0.056			These fish not filleted									
	July 24,26	049	69	3.5	3.1	4126	105470	0.142												
		050	55	1.6	1.4	3607	92203	0.144												
		051	70	3.6	3.1	2930	74898	0.129												
		052	58	1.7	1.8	3840	98160	0.101												
		053	61	2.1	2.0	3022	77249	0.124												
		054	67	3.1	2.8	3856	98569	0.123												
	Aug 2,3	103		2.9					1.19	11400	291411	0.220	1324595			1.21	9737	248901	10562	269990
		105	68	3.3					1.38	11773	300946					1.50	10735	274412	11232	287117
		107	77	5.0					2.13	7185	183666					2.20	6020	153885	6593	168533
		109		3.3					1.45	9956	254499					1.47	8792	224744	9370	239519
		111	68	2.8					1.25	8304	212270					1.31	7492	191513	7888	201636
		113		3.4					1.47	12260	313395			304005	97	1.54	10210	260992	11211	286580
		115	68	3.6					1.51	10931	279422					1.60	8550	218558	9706	248108
		117		3.7					1.65	8533	218124			223769	103	1.68	7866	201074	8196	209509
		119		4.6					2.02	8080	206544					2.01	7014	179294	7548	192945
		121	69	3.0					1.26	6720	171779			169123	98	1.29	5792	148057	6251	159790
		123	70	3.8					1.67	8196	209509					1.66	8906	227658	8550	218558
		125		3.1					1.30	9391	240056					1.43	8713	222725	9036	230982
		127	68	3.3					1.41	7598	194223	0.170	1142488			1.49	6840	174847	7209	184279
		129		3.7					1.53	7539	192715	0.170	1133618			1.79	7693	196651	7622	194836
		131		3.3	2.9	7888	201636													
		133	69	3.5					1.47	9201	235199	0.200	1175995			1.70	8902	227556	9041	231109
		135	70	4.2					1.47	9211	235455	0.210	1121214			1.58	8776	224335	8986	229703
		137	67	2.9					1.34	11794	301483	0.250	1205932			1.25	10877	278042	11351	290158
	Aug 24,25	306	83	5.6					2.26	27304	697955	0.610	1144189			2.78	18933	483972	22687	579934
		308	93	9.1					4.11	16249	415363	0.360	1153786			4.46	11693	298901	13878	354755
		310	80	5.7					2.52	16907	432183	0.400	1080458			2.66	12002	306800	14388	367791
		312	78	5.2					1.97	28155	719709	0.460	1564585			2.76	18570	474693	22562	576738
		314	78	5.4					2.13	21740	555726	0.400	1389315			2.71	16767	428604	18956	484560
		316	79	5.1					2.23	25365	648390	0.500	1296780			2.29	18824	481186	22051	563676
		318	85	6.2					2.84	22140	565951					2.66	16546	422955	19435	496805
		320	75	5.0					2.27	27045	691334					2.06	19998	511196	23692	605624
		322	79	5.0					2.05	26154	668558					2.09	17745	453604	21909	560046
		324	79	5.6					2.51	22625	578349					2.29	17269	441437	20070	513037
		326	78	4.5					1.98	31048	793661			890255	112	2.01	21840	558282	26409	675077
		328	78	4.8					2.09	25542	652914			619791	95	1.95	19435	496805	22594	577556
		330	77	5.0					2.35	28926	739417	0.570	1297223			1.96	19196	490695	24501	626304
		332	85	6.7					2.85	19058	487168			414436	85	2.89	13555	346498	16287	416334
		334	78	4.6					1.98	27642	706595	0.550	1284718			1.93	20192	516155	23965	612602
		336	81	5.5					2.36	21271	543737	0.460	1182037			2.29	12845	328349	17121	437653
Emerald Shiner	Aug 24,25	406	78	4.1					1.81	22539	576150			565629	98	1.69	15869	405649	19318	493814
		408	78	3.8					2.05	26316	672699					1.24	17218	440133	21627	552837
		410	81	4.6					2.18	20362	520501					1.89	17236	440593	18910	483384
		412	81	4.3					2.26	27334	698722					1.45	18283	467357	23778	607822
		414	79	4.3					1.98	22616	578119					1.82	18236	466155	20518	524489
		416	76	3.6					1.79	19453	497265			506623	102	1.33	11134	284611	15907	406621
		418	85	5.7					1.65	23460	599693					2.00	11393	291232	16848	430675
		420	73	5.0					2.33	25927	662756					1.65	18330	468558	22777	582234
		424	75	3.4					1.53	32025	818635					1.33	18629	476201	25795	659381
		426	80	4.2					2.16	18128	463395					1.19	13507	345271	16487	421447
		428	77	4.1					1.85	23125	591130			634347	107	1.40	17295	442101	20614	526943

Note: Total length not taken when caudal fin was broken.

Table A.3.5. Mean mercury content of yellow perch and emerald shiners from LM81-2, a sediment-bottomed limnocorral with added (low) moss-peat, 1981. (For sample sizes, see Table A.3.4).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30-July 4	Time 0	51	1.0								0.090								
	July 10,11	007-012	55	1.5	1.3	591	15112	0.046												
	July 24,26	049-054	63	2.6	2.4	3564	91092	0.127												
	Aug 2,3	103-137	69	3.5					1.50	9298	237688	0.203	1183974	232299	99	1.57	8407	214897	8844	226080
	Aug 24,25	306-336	80	5.6					2.41	24198	618563	0.479	1265899	641494	97	2.49	17213	440008	20657	528031
Emerald Shiner	June 30-July 4	Time 0	76	2.6																
	Aug 24,25	406-428	78	4.3					1.96	23753	607188			568866	102	1.54	16103	411624		

Table A.3.6. Mercury content of yellow perch and emerald shiners from PN81-3 , a plastic bottomed limnocorral with added phosphorus and nitrogen, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl Lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific Activity (dpm/ug)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
	July 10,11	013	53	1.3	1.2	996	25460	0.071												
		014	56	1.5	1.5	838	21421	0.069												
		015	56	1.5	1.4	709	18124	0.052												
		016	54	1.3	1.3	860	21984	0.041												
		017	56	1.5	1.4	757	19351	0.064												
		018	54	1.4	1.3	828	21166	0.041				These fish not filleted								
	July 24,26	055	58	1.6	1.6	712	18200	0.041												
		056	59	1.8	1.7	669	17101	0.035												
		057	54	1.3	1.3	661	16897	0.042												
		058	67	2.9	2.7	758	19376	0.033												
		059	56	1.4	1.3	853	21805	0.034												
		060	64	2.3	2.1	733	18737	0.054												
	Aug 2,3	141	63	2.7					1.05	705	18021			16644	92	1.12	1456	37219	1093	27940
		143	65	2.6					1.13	681	17408	0.041	424585			1.28	991	25332	846	21626
		145	68	2.9					1.28	757	19351			15344	79	1.26	1159	29627	956	24438
		147	60	2.1					0.92	687	17561	0.045	390244			0.88	1123	28707	900	23006
		149		2.0					0.93	1268	32413	0.033	982212			0.88	1181	30189	1226	31339
		151		2.5					1.24	601	15363			10102	66	1.15	870	22239	730	18661
		153		2.6					0.99	1007	25741	0.046	559587			1.21	1261	32234	1147	29320
		155		2.6					1.14	774	19785	0.040	494625			1.09	1398	35736	1079	27582
		157		2.4					1.00	696	17791	0.043	413744			0.99	1435	36682	1064	27198
		159	65	2.6					1.22	796	20348					1.06	1146	29294	959	24514
	Aug 24,25					No Sample														
Emerald Shiner	Aug 24,25	430	85	4.0					1.91	1215	31058					1.58	1573	40210	1377	35199
		434	86	4.6					2.17	1253	32030			30076	94	1.78	1506	38497	1367	34944
		436	83	3.8					1.69	1269	32439			30628	94	1.44	1414	36145	1336	34151
		438	80	3.6					1.53	1841	47060			41853	89	1.55	1600	40900	1720	43967

Note: Total length not taken when caudal fin was broken.

Table A.3.7. Mean mercury content of yellow perch and emerald shiners from PN81-3 , a plastic-bottomed limnocorral with added phosphorus and nitrogen, 1981. (For sample sizes, see Table A.3.6).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30- July 4	Time 0	51	1.0								0.090								
	July 10,11	013-018	55	1.4	1.3	831	21251	0.056												
	July 24,26	055-060	60	1.9	1.8	731	18686	0.040												
	Aug 2,3	141-159	64	2.5					1.09	797	20378	0.041	544166	14030	79	1.09	1202	30726	1000	25562
	Aug 24,25				No Sample															
Emerald Shiner	June 30- July 4	Time 0	76	2.6																
	Aug 24,25	430-438	84	4.0					1.83	1395	35647			34186	92	1.59	1523	38938	1450	37065

Table A.3.8. Mercury content of yellow perch and emerald shiners from LSR1-4, a plastic-bottomed limnocorral with added (low) bank clay, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	019	56	1.6	1.41	876	22393	0.061												
		020	58	1.7	1.59	538	13753	0.060												
		021	56	1.5	1.42	539	13778	0.057												
		022	56	1.8	1.59	752	19223	0.060												
		023	57	1.3	1.19	505	12909	0.058												
		024	52	1.4	1.21	507	12960	0.035				These fish not filleted								
	July 24,26	061	64	2.4	2.15	1671	42715	0.049												
		062	60	1.9	1.64	1184	30266	0.026												
		063	61	2.1	1.89	651	16641	0.043												
		064	64	2.6	2.17	1299	33206	0.048												
		065	62	2.2	1.89	583	14903	0.028												
		066	65	2.6	2.29	797	20373	0.035												
	Aug 2,3	205		2.6					0.92	668	17076					0.96	1084	27710	880	22495
		207	60	2.2					0.95	460	11759	0.049	239980			0.81	1043	26662	728	18609
		217		2.8					1.33	2609	66692	0.054	1235037			1.01	2597	66385	2604	66564
		219	65	3.2					1.40	2101	53707	0.042	1278738			1.23	2412	61656	2246	57413
		221		3.1					1.33	1260	32209	0.044	732023			1.41	1399	35762	1332	34049
		223	68	3.3					1.53	1980	50613	0.043	1177047			1.33	2084	53272	2028	51840
		225		2.7					1.28	493	12602					0.97	833	21293	640	16360
		229	64	2.7					1.14	691	17664	0.033	535273			1.07	981	25077	831	21242
		231	65	2.7					1.26	679	17357					1.02	1009	25792	827	21140
		233	64	2.7					1.00	334	8538					1.15	984	25153	682	17434
		235	63	2.6					1.19	1175	30036					1.08	1071	27377	1126	28783
		237		2.8					1.34	1245	31825					1.11	1486	37986	1354	34611
		239	66	3.0					1.33	709	18124			14119	78	1.14	1022	26125	853	21805
		241	64	2.5					1.13	493	12602					1.01	1012	25869	738	18865
		243	66	2.6					1.23	1057	27019			24780	92	1.02	1278	32669	1157	29576
		245	67	3.3					1.50	1353	34586					1.29	1932	49387	1621	41437
		247	60	2.7					1.11	1014	25920					1.06	1214	31033	1112	28425
		249	71	4.2					2.01	1299	33206			29920	90	1.52	1536	39264	1401	35813
	Aug 24,25	338	69	3.6					1.42	2418	61810			55450	90	1.73	2083	53246	2234	57106
		340	79	4.7					2.05	1879	48032			49333	103	2.50	1281	32745	1550	39622
		342	85	6.5					2.48	1560	39877			42760	107	3.37	1363	34842	1447	36989
		346	83	5.7					2.07	2794	71421	0.044	1623205			2.91	2856	73006	2830	72342
Emerald Shiner	Aug 24,25	440	78	3.9					1.76	3428	87628					1.13	2417	61784	3033	77531
		442	82	5.1					2.35	1958	50051			49914	98	1.61	1943	49668	1952	49898
		444	77	3.2					1.46	2562	65491					1.31	2286	58436	2431	62142
		446	81	4.1					1.89	3479	88931					1.45	2693	68839	3138	80215
		448	84	4.4					1.96	2342	59867			64375	108	1.80	2502	63957	2419	61835
		450	83	4.1					1.89	2909	74361					1.48	2383	60915	2678	68456
		452	75	3.3					1.42	3459	88420			91057	103	1.16	2686	68661	3111	79525
		454	78	3.9					1.51	3435	87807					1.75	2552	65235	2961	75690

Note: Total length not taken when caudal fin was broken.

Table A.3.9. Mean mercury content of yellow perch and emerald shiners from LS81-4, a plastic-bottomed limnocorral with added (low) bank clay, 1981. (For sample sizes, see Table A.3.8).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30- July 4	Time 0	51	1.0								0.090								
	July 10,11	019-024	56	1.6	1.40	620	15836	0.055												
	July 24,26	061-066	63	2.3	2.01	1031	26351	0.038												
	Aug 2,3	205-249	65	2.9					1.28	1090	27863	0.044	866350	22940	87	1.12	1388	35471	1231	31470
	Aug 24,25	338-346	79	5.1					2.01	2163	55285	0.044	1623205	49181	100	2.63	1896	48460	2015	51515
Emerald Shiner	June 30- July 4	Time 0	76	2.6																
	Aug 24,25	440-454	80	4.0					1.78	2947	75320			68449	103	1.46	2433	62187	2715	69412

Table A.3.10. Mercury content of yellow perch and emerald shiners from C81-5, a plastic-bottomed control limnocorral, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	025	55	1.4	1.29	621	15874	0.038												
		026	56	1.6	1.45	794	20297	0.071												
		027	52	1.2	1.07	932	23824	0.056												
		028	56	1.4	1.25	696	17791	0.043												
		029	56	1.5	1.37	861	22009	0.030												
		030	50	0.9	0.78	1460	37321	0.055	These fish not filleted											
	July 24,26	067	61	2.2	1.89	694	17740	0.045												
		068	61	2.1	1.79	634	16207	0.020												
		069	60	2.2	1.93	788	20143	0.025												
		070	58	1.9	1.62	932	23824	0.026												
		071	59	2.0	1.72	858	21933	0.022												
		072	60	2.1	1.83	915	23390	0.055												
	Aug 2,3	161	59	2.2					0.88	875	22367	0.056	399411			0.86	1362	34816	1116	28528
		163	68	3.5					1.58	713	18226	0.026	701000			1.33	1148	29346	912	23313
		165	66	3.2					1.40	787	20118	0.035	574800			1.12	1061	27122	909	23236
		167	73	4.3					1.87	832	21268			15330	72	1.56	1157	29576	980	25051
		169	69	3.3					1.43	745	19044	0.029	656690			1.31	1119	28604	924	23620
		171	70	3.5					1.49	989	25281	0.052	486173			1.33	1589	40619	1272	32515
		173	69	3.7					1.61	796	20348			11519	57	1.42	1249	31927	1008	25767
		175	67	3.2					1.43	1070	27352					1.21	1765	45118	1389	35506
		177	67	3.1					1.23	846	21626					1.11	1143	29218	987	25230
		179	73	4.2					1.83	1489	38062					1.62	1570	40133	1527	39034
		181	67	3.1					1.34	851	21754			12019	55	1.25	1568	40082	1197	30598
		183	66	3.0					1.23	651	16641					1.17	1209	30905	923	23594
		185	68	3.4					1.48	1098	28067	0.038	738605			1.19	1514	38701	1283	32797
		187	67	3.2					1.32	782	19990					1.14	1025	26201	895	22878
		189	69	3.7					1.69	996	25460					1.35	1140	29141	1060	27096
		191		3.1					1.32	817	20884					1.06	1342	34305	1051	26866
		193	66	3.1					1.46							1.13	1084	27710		
		195	63	2.9					1.05	891	22776					1.05	1452	37117	1172	29959
	Aug 24,25	348	82	6.2					2.98	1011	25844	0.110	234945			3.12	1366	34918	1193	30496
		350	78	4.7					2.02	1146	29294	0.100	292940			2.45	1600	40900	1395	35660
		352	83	4.3					2.07	828	21166	0.070	302371			3.00	1310	33487	1113	28451
		354	84	6.6					2.24	1045	26713			22725	85	4.20	1854	47393	1573	40210
		356	81	5.6					2.35	726	18558			14905	80	2.70	1291	33001	1028	26278
		358	86	6.9					2.37	707	18073	0.032	564781			3.84	1012	25869	896	22904
		360	86						2.39	1422	36350	0.044	826136			3.91	1476	37730	1456	37219
		362	78	5.8					2.27	1159	29627			21342	72	3.09	1651	42203	1443	36887
		364	77	4.7					1.95	971	24821	0.045	551578			2.32	1334	34100	1168	29857
		366	85	6.1					2.43	678	17331	0.035	495171			2.94	1151	29422	937	23952
Emerald Shiner	Aug 24,25	456	75	3.2					1.53	1314	33589					1.32	1415	36171	1361	34790
		458	78	3.9					1.72	1295	33103					1.61	1987	50792	1630	41667
		460	76	3.3					1.72	1358	34714					1.15	2345	59944	1753	44811
		462	78	3.9					1.79	1358	34714			26920	78	1.52	2044	52249	1673	42766
		464	77	3.5					1.66	1393	35608			28807	81	1.06	2376	60736	1776	45399
		466	82	4.7					2.34	1302	33282					1.32	1807	46191	1484	37935
		468	81	3.8					1.62	1398	35736			28287	79	1.53	1752	44785	1570	40133
		470	84	4.6					2.12	1650	42178					1.44	1765	45118	1697	43379
		472	83	4.3					2.20	1241	31723					1.27	1587	40567	1368	34969
		474	80	4.0					2.01	1315	33615					1.37	1758	44939	1495	38216
		476	77	3.6					1.68	1409	36017					1.32	1310	33487	1365	34893

Note: Total length not taken when caudal fin was broken.

Table A.3.11. Mean mercury content of yellow perch and emerald shiners from C81-5, a plastic-bottomed control limnocorral, 1981. (For sample sizes, see Table A.3.10).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30- July 4	Time 0	51	1.0								0.090								
	July 10,11	025-030	54	1.3	1.20	894	22853	0.049												
	July 24,26	067-072	60	2.1	1.80	804	20540	0.032												
	Aug 2,3	161-195	67	3.3					1.42	896	22898	0.039	592780	12956	61	1.23	1305	33369	1094	27976
	Aug 24,25	348-366	82	5.1					2.31	969	24778	0.062	466846	19657	79	3.16	1405	35902	1220	31191
Emerald Shiner	June 30- July 4	Time 0	76	2.6																
	Aug 24,25	456-476	79	3.9					1.85	1367	34934			28005	79	1.36	1831	46816	1561	39905

Table A.3.12. Mercury content of yellow perch and emerald shiners from HS81-6, a plastic-bottomed limnocorral with added (high) bank clay, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	031	55	1.5	1.33	839	21447	0.043												
		032	48	1.0	0.91	596	15235	0.061												
		033	51	1.2	1.13	614	15695	0.035												
		034	53	1.2	1.15	671	17152	0.055												
		035	58	1.7	1.56	585	14954	0.044												
		036	52	1.4	1.18	759	19402	0.051	These fish not filleted											
	July 24,26	073	65	2.3	1.96	614	15695	0.039												
		073	60	1.9	1.67	751	19197	0.039												
		075	60	2.0	1.76	652	16667	0.019												
		076	62	2.1	1.83	563	14392	0.037												
		077	60	2.1	1.82	755	19300	0.038												
		078	60	2.0	1.73	608	15542	0.056												
	Aug 2,3	197		3.0					1.22	610	15593			17066	109	1.40	652	16667	632	16155
		199	69	3.3					1.49	1115	28502					1.23	1275	32592	1187	30343
		201	61	2.7					1.00	564	14417					0.97	821	20987	691	17664
		203	62	2.5					0.98	608	15542	0.038	409000			0.93	1068	27301	832	21268
		272		2.9					1.32	572	14622			15496	106	1.40	1187	30343	889	22725
		274		2.2					0.97	634	16207					0.95	2028	51840	1324	33845
		276	68	3.0					1.25	1120	28630					1.28	602	15389	858	21933
		278	72	3.8					1.58	489	12500					1.78	766	19581	636	16258
		280		2.6					1.10	533	13625	0.042	324405			1.16	883	22572	713	18226
		282	66						1.23	498	12730	0.044	289318			1.32	718	18354	612	15644
		284		3.0					1.33	794	20297	0.041	495049			1.26	613	15670	706	18047
		286	70	3.1					1.09	644	16462	0.031	531032			1.50	815	20833	743	18993
		288		3.0					1.47	584	14928	0.045	331733			1.25	1103	28195	823	21038
		290		4.3					1.98	583	14903			10386	70	1.98	1038	26534	811	20731
		292		3.0					1.33	581	14852					1.33	1023	26150	802	20501
		294		2.5					1.94	347	8870					1.14	760	19427	500	12781
		296		3.8					1.50	625	15976					1.63	988	25256	814	20808
		298	73	3.7					1.64	542	13855					1.64	1144	29243	843	21549
	Aug 24,25	374	88	7.8					3.30	1323	33819			34150	101	3.32	1109	28349	1216	31084
		376	76	4.8					2.23	1101	28144			28217	100	2.13	1142	29192	1121	28655
Emerald Shiner	Aug 24,25	478	77	3.2					1.67	1399	35762			34157	96	0.93	1028	26278	1266	32362
		480	72	3.1					1.60	1348	34458					1.07	1437	36733	1384	35378
		482	82	4.2					1.88	995	25435					1.48	1203	30752	1087	27786
		484	76	3.5					1.75	1316	33640					1.18	1973	50435	1581	40414
		486	75	4.0					2.01	1475	37704			35026	93	1.28	1622	41462	1532	39162
		488	74	3.7					1.86	1666	42587					1.31	1606	41053	1641	41948
		490	82	4.8					2.10	1235	31570					1.74	1596	40798	1399	35762
		492	80	3.8					1.79	1792	45808					1.29	2124	54294	1931	49361
		494	80	4.5					2.12	1458	37270			34876	94	1.60	1550	39622	1498	38292
		498	77	3.5					1.74	1883	48134					1.07	1588	40593	1771	45271
		502	77	3.3					1.43	1407	35966					1.27	2131	54473	1748	44683
		506	81	3.8					1.77	1506	38497					1.30	1213	31007	1382	35327
		508	82	4.6					1.22	1806	46166					1.49	1297	33154	1526	39008

Note: Total length not taken when caudal fin was broken.

Table A.3.13. Mean mercury content of yellow perch and emerald shiners from HS81-6, a plastic-bottomed limnocorral with added (high) bank clay, 1981. (For sample sizes, see Table A.3.12).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30- July 4	Time 0	51	1.0								0.090								
	July 10,11	031-036	53	1.3	1.21	677	17314	0.048												
	July 24,26	073-078	61	2.1	1.80	657	16799	0.038												
	Aug 2,3	197-298	68	3.1					1.36	636	16251	0.040	396756	14316	95	1.34	971	24830	801	20473
	Aug 24,25	374-376	82	6.3					2.77	1212	30982			31184	101	2.73	1126	28771	1169	29870
Emerald Shiner	June 30- July 4	Time 0	76	2.6																
	Aug 24,25	478-508	78	3.9					1.76	1484	37923			34686	94	1.31	1567	40050	1519	38827

Table A.3.14. Mercury content of yellow perch and emerald shiners from C81-7, a plastic-bottomed control limnocorral, 1981.

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	July 10,11	037	53	1.2	1.18	887	22674	0.033												
		038	53	1.4	1.29	924	23620	0.042												
		039	57	1.6	1.54	739	18891	0.029												
		040	52	1.2	1.09	808	20654	0.040												
		041	49	1.0	0.93	1604	41002	0.042												
		042	55	1.5	1.35	1044	26687	0.059	These fish not filleted											
	July 24,26	079	62	2.4	2.08	704	17996	0.033												
		080	58	1.9	1.69	753	19248	0.038												
		081	63	2.5	2.12	706	18047	0.044												
		082	60	2.1	1.85	633	16181	0.032												
		083	60	2.4	2.04	930	23773	0.043												
		084	58	1.8	1.54	714	18252	0.029												
	Aug 2,3	209	67	3.3					1.52	591	15107					1.28	1290	32975	911	23287
		211	61	2.6					1.02	826	21115			12648	60	0.88	1804	46115	1279	32694
		227	63	2.6					1.27	610	15593					0.99	1129	28860	837	21396
		251	61	2.6					1.02	297	7592	0.046	165043			0.97	669	17101	478	12219
		253	62	2.8					1.27	651	16641	0.044	378205			1.07	1299	33206	947	24208
		255	58	2.0					0.92	765	19555			6278	32	0.82	1620	41411	1168	29857
		257	61	2.5					1.16	640	16360	0.043	380465			0.90	1140	29141	858	21933
		259	63	2.6					1.13	466	11912	0.050	238240			0.94	1156	29550	779	19913
		261	67	3.2					1.50	523	13369	0.043	310907			1.20	975	24923	724	18507
		263	64	2.9					1.28	448	11452	0.089	128674			1.03	1022	26125	704	17996
		265	69	3.1					1.53	457	11682			4590	39	1.19	1019	26048	703	17970
		267	67	3.1					1.49	608	15542					1.19	1132	28937	841	21498
		269	66	3.2					1.54	494	12628					1.19	1095	27991	756	19325
	Aug 24,25					No sample														
Emerald Shiner	Aug 24,26	510	74	4.3					2.19	384	9816					1.37	1025	26201	631	16130
		512	75	4.0					1.71	573	14647					1.71	1460	37321	1017	25997
		514	75	3.3					1.52	567	14494					1.38	1070	27352	806	20603
		516	79	4.1					1.87	623	15925			6386	40	1.73	1400	35787	996	25460
		518	75	3.2					1.41	491	12551					1.38	1161	29678	822	21012
		520	84	4.6					2.03	669	17101					1.90	1480	37832	1061	27122
		522	72	3.6					1.37	769	19657					1.75	1484	37935	1170	29908
		524	77	3.4					1.60	685	17510					1.49	2066	52812	1351	34535
		526	75	3.4					1.47	655	16743					1.16	1390	35532	979	25026
		528	75	3.6					1.56	677	17306					1.29	2506	64059	1505	38471
		530	77	5.0					2.27	569	14545			9200	63	1.68	1454	37168	945	24156
		532	80	4.4					2.02	642	16411					1.58	1619	41385	1071	27377
		534	80	4.2					1.80	643	16437					1.58	1801	46038	1184	30266
		536	75	4.0					1.97	396	10123			4735	47	1.32	896	22904	597	15261

Note: Total length not taken when caudal fin was broken.

Table A.3.15. Mean mercury content of yellow perch and emerald shiners from C81-7, a plastic-bottomed control limnocorral, 1981. (For sample sizes, see Table A.3.14).

			Whole fish		Whole fish less gut				Muscle tissue							Carcass			Combined muscle/carcass	
Species	Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Methyl Hg (dpm/g)	Methyl Hg(% of total)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Yellow Perch	June 30-July 4	Time 0	51	1.0								0.090								
	July 10,11	037-042	53	1.3	1.20	1001	25588	0.041												
	July 24,26	079-084	60	2.2	1.90	740	18916	0.037												
	Aug 2,3	209-269	64	2.8					1.28	567	14504	0.053	266922	7839	44	1.05	1181	30183	845	21600
	Aug 24,25					No Sample														
Emerald Shiner	June 30-July 4	Time 0	76	2.6																
	Aug 24,25	510-536	77	3.9					1.77	596	15233			6774	50	1.52	1487	38000	1010	25809

Table A.3.16. "Time zero" data on yellow perch, 1982.

		Whole fish		Muscle tissue		Carcass			Whole fish		Muscle tissue		Carcass
Date sampled	Fish no.	Total length (mm)	Round wt (g)	Weight (g)	Total Hg (µg/g)	Weight (g)	Date sampled	Fish no.	Total length (mm)	Round wt (g)	Weight (g)	Total Hg (µg/g)	Weight (g)
July 5	1	61	1.75				July 3	31	55	1.37			
	2	57	1.33					32	50	1.04			
	3	59	1.72					33	54	1.40			
	4	56	1.51					34	58	1.68			
	5	58	1.49					35	54	1.38	0.49	0.34	0.86
	6	60	1.77					36	56	1.67			
	7	56	1.36					37	62	2.05			
	8	64	1.99					38	57	1.53			
	9	49	0.91					39	55	1.28			
	10	57	1.48					40	55	1.19			
	11	57	1.57					41	64	2.21			
	12	57	1.47					42	62	2.11			
	13	60	1.89	0.35	0.034	1.43		43	60	1.57			
	14	55	1.17					44	53	1.08			
	15	53	1.07					45	61	1.83			
	16	56	1.33					46	54	1.14			
	17	62	2.05					47	56	1.34			
	18	56	1.25					48	49	0.86			
	19	50	1.00					49	53	1.36			
	20	50	0.96					50	56	1.38			
	21	57	1.46					51	59	1.68			
July 3	22	54	1.19					52	51	1.01			
	23	59	1.46					53	50	1.00			
	24	59	1.64					54	49	0.80			
	25	63	1.94	0.83	0.034	1.01		55	52	0.85			
	26	58	1.67					56	55	1.17			
	27	55	1.24	0.40	0.047	0.75		57	56	1.44			
	28	61	2.01	0.71	0.047	1.18		58	58	1.32	0.39	0.059	0.89
	29	55	1.23										
	30	59	1.61										

Table A.3.17. Mercury content of yellow perch from FM82-1, a limnocorral located over a flooded moss/sedge/grass bottom, 1982.

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19, 21	101	68	3.08			1.04	183	4678	0.053	88264	1.50	587	15005	422	10787
	102	64	2.65			0.92	306	7822	0.049	159633	1.22	658	16820	507	12960
	103	60	1.90			0.49	525	13420	0.066	203333	0.94	898	22955	770	19683
	104	58	1.55			0.41	384	9816	0.059	166373	0.70	802	20501	648	16564
	105	59	1.61			0.55	550	14059	0.061	230475	0.91	908	23211	773	19760
	106	63	2.23			0.59	470	12014	0.072	166861	1.10	803	20527	687	17561
Aug 2	107	65	2.49			0.96	369	9433	0.045	209622	1.15	591	15107	490	12526
	108	72	2.89			1.15	374	9560	0.061	156721	1.31	525	13420	454	11605
	109	58	1.87			0.75	856	21881	0.053	412849	0.78	808	20654	832	21268
	110	63	2.10			0.78	504	12883	0.053	243075	0.98	690	17638	608	15542
	111	60	2.30			0.82	803	20527	0.064	320734	1.12	1006	25716	920	23517
	112	64	2.80			1.05	276	7055	0.053	133113	1.28	486	12423	391	9995
Aug 16	113	72	3.48			1.23	575	14698	0.053	277321	1.61	702	17945	647	16539
	114	75	4.09			1.59	451	11529	0.045	256200	1.57	596	15235	523	13369
	115	74	3.29			1.22	943	24105	0.066	365227	1.57	903	23083	920	23517
	116	72	3.64			1.49	419	10711	0.038	281868	1.50	554	14162	487	12449
	117	70	3.38			1.22	478	12219	0.049	249367	1.58	550	14059	519	13267
	118	64	2.07			0.74	612	15644	0.053	295170	0.89	744	19018	684	17485
Aug 30	119	75	4.15			1.57	479	12244	0.027	453481	1.91	481	12296	480	12270
	120	74	4.21			1.60	661	16897	0.041	412122	1.90	577	14749	615	15721
	121	70	3.32			1.21	935	23901	0.042	569071	1.58	765	19555	839	21447
	122	75	4.23			1.64	837	21396	0.021	1018857	1.71	755	19300	795	20322
	123	78	4.83			1.77	553	14136	0.023	614609	2.05	629	16079	594	15184
	124	80	5.49			2.17	551	14085	0.013	1083462	2.36	515	13165	532	13599
	125	71	3.25	661	16897	1.11	684	17485			1.57	786	20092	744	19018
	126	66	2.63	677	17306	0.87	670	17127			1.39	655	16743	661	16897
	127	66	2.57	773	19760	0.77	995	25435			1.23	934	23875	957	24463
	128	61	2.10	811	20731	0.69	1170	29908			1.02	955	24412	1042	26636
	129	66	2.57	986	25204	0.91	1298	33180			1.22	959	24514	1104	28221
	130	76	5.22	385	9842	1.69	622	15900			2.24	667	17050	648	16564
	131	68	2.69	735	18788										
	132	72	3.72	575	14698										
	133	69	3.04	853	21805										
	134	65	2.64	993	25383										
	135	70	3.03	721	18430										
	136	66	2.99	758	19376										
	137	78	4.61	473	12091										
	138	72	3.50	1018	26022										
	139	73	3.44	953	24361										
	140	74	3.80	676	17280										
	141	81	4.88	654	16718										
	142	72	3.74	791	20220										
	143	69	3.13	657	16794										
	144	69	3.16	411	10506										
	145	75	4.09	905	23134										
	146	71	3.28	665	16999										
	147	69	3.17	874	22342										
	148	65	2.61	715	18277										
	149	71	3.15	490	12526										
	150	71	3.27	758	19376										
	151	71	3.29	763	19504										
	152	73	3.94	434	11094										
	153	71	3.30	412	10532										
	154	68	2.93	641	16385										
	155	77	4.45	437	11171										
	156	68	2.78	1206	30828										
	157	77	4.31	541	13829										
	158	67	2.69	773	19760										
	159	70	3.16	801	20475										
	160	70	3.34	716	18303										
	161	69	3.02	1346	34407										
	162	62	2.19	824	21063										
	163	71	3.39	733	18737										
	164	68	2.80	834	21319										

Table A.3.18. Mean mercury content of yellow perch from FM82-1, a limnocorral located over a flooded moss/sedge/grass bottom, 1982. (For sample sizes, see Table A.3.17).

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	101-106	62	2.17			0.67	403	10302	0.060	169157	1.06	776	19837	635	16219
Aug 2	107-112	64	2.41			0.92	530	13557	0.055	246019	1.10	684	17493	616	15742
Aug 16	113-118	71	3.33			1.25	580	14818	0.051	287526	1.45	675	17250	630	16104
Aug 30	119-164	71	3.44	736	18807	1.33	788	20141	0.028	691934	1.68	723	18486	751	19195

Table A.3.19. Mercury content of yellow perch from LM82-3, a sediment-bottomed limnocorral with added (low) moss-peat, 1982.

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	301	59	1.94			0.45	920	23517	0.051	461118	0.89	1452	37117	1273	32541
	302	66	2.59			0.72	427	10915	0.064	170547	1.33	854	21830	704	17996
	303	56	1.66			0.52	783	20015	0.038	526711	0.78	1270	32464	1075	27480
	304	62	2.07			0.62	508	12986	0.072	180361	1.00	1136	29039	896	22904
	305	55	1.57			0.53	748	19121	0.051	374922	0.69	1321	33768	1072	27403
	306	62	2.18			0.74	804	20552	0.053	387774	1.04	1083	27684	967	24719
Aug 2	307	70	3.30			1.29	696	17791	0.045	395356	1.50	971	24821	844	21575
	308	63	2.40			0.89	2546	65082	0.066	986091	1.11	2698	68967	2630	67229
	309	67	2.85			1.14	1387	35455	0.059	600932	1.40	1638	41871	1525	38983
	310	65	2.49			0.98	1815	46396	0.061	760590	1.14	1561	39903	1678	42894
	311	64	2.48			0.94	2147	54882	0.055	997855	1.18	2049	52377	2092	53476
	312	68	2.96			1.05	2164	55317	0.078	709192	1.35	2020	51636	2083	53246
Aug 16	313	68	2.67			0.93	3548	90695	0.072	1259653	1.35	2366	60481	2848	72802
	314	67	2.95			1.06	2029	51866	0.047	1103532	1.36	1577	40312	1775	45373
	315	70	3.11			1.17	4107	104985	0.072	1458125	1.33	2921	74668	3476	88855
	316	76	4.22			1.67	2774	70910	0.057	1244035	1.90	2150	54959	2442	62423
	317	72	3.19			1.19	3258	83282	0.072	1156694	1.47	1986	50767	2555	65312
	318	74	3.72			1.45	3229	82541	0.064	1289703	1.69	2287	58461	2722	69581
Aug 30	319	86	3.93			1.50	4372	111759	0.044	2539977	2.02	3374	86247	3799	97111
	320	76	3.62			1.47	5591	142919	0.045	3175978	1.49	3455	88318	4516	115440
	321	78	4.67			1.80	4012	102556	0.035	2930171	2.25	2537	64852	3193	81621
	322	69	3.03			1.17	3937	100639	0.090	1118211	1.20	2219	56723	3067	78400
	323	71	3.36			1.33	3883	99259	0.038	2612079	1.55	2515	64289	3147	80445
	324	72	3.57			1.44	8988	229755	0.110	2088682	1.72	5248	134151	6952	177710
	325	62	2.32	3059	78195	0.79	4963	126866							
	326	62	2.36	3488	89162	0.82	5502	140644							
	327	63	2.37	3478	88906	0.93	5392	137832							
	328	80	4.40	2784	71166	1.46	4394	112321							
	329	75	4.41	1982	50665	1.50	2970	75920							
	330	71	3.36	2879	73594	1.26	4351	111222							
	331	68	3.16	2546	65082	0.92	4476	114417			1.50	2847	72776	3466	88599
	332	74	4.15	2859	73083	1.35	4752	121472			1.93	3371	86171	3939	100690
	333	71	3.42	3926	100358	1.21	6290	160787			1.55	4021	102786	5016	128221
	334	73	3.79	2743	70118	1.37	4275	109279			1.66	2752	70348	3441	87960
	335	71	3.66	2369	60557	1.35	4303	109995			1.62	2620	66973	3385	86529
	336	71	3.55	3472	88753	1.30	6266	160174			1.56	3368	86094	4685	119760
	337	67	2.86	4716	120552										
	338	69	3.08	1560	39877										
	339	71	4.00	4845	123850										
	340	68	3.48	4258	108845										
	341	69	3.24	2846	72751										
	342	77	4.18	2408	61554										
	343	69	3.40	3095	79116										
	344	75	3.75	2524	64519										
	345	71	3.39	3223	82388										
	346	69	3.39	2216	56646										
	347	67	3.17	2795	71447										
	348	71	3.40	3229	82541										
	349	77	4.73	2664	68098										
	350	73	3.90	3453	88267										
	351	71	3.93	5825	148901										
	352	68	2.78	1959	50077										
	353	65	2.32	3001	76713										
	354	69	3.01	3264	83436										
	355	73	4.21	883	22572										
	356	67	3.17	2922	74693										
	357	70	3.30	5347	136682										
	358	66	2.95	5560	142127										
	359	71	3.48	2566	65593										
	360	67	3.30	3191	81570										
	361	66	2.39	2437	62296										
	362	76	3.92	1661	42459										
	363	75	4.05	1469	37551										
	364	68	3.18	3154	80624										
	365	65	2.81	2879	73594										
	366	69	2.91	2368	60532										
	367	65	2.54	2207	56416										
	368	66	2.61	2802	71626										
	369	71	3.58	1666	42587										
	370	68	2.70	2676	68405										
	371	72	3.57	3275	83717										
	372	85	5.94	3140	80266										
	373	76	3.84	2632	67280										
	374	70	3.05	2655	67868										
	375	74	3.98	1825	46651										
	376	65	2.70	1926	49233										
	377	72	3.73	2495	63778										
	378	73	3.78	2525	64545										
	379	75	3.94	2347	59995										
	380	70	2.95	3146	80419										

These fish (#325-#330) were dissected for muscle, skin, gut, liver, gills and carcass. (See Table A.3.31 for complete mercury data)

Table A.3.20. Mean mercury content of yellow perch from LM82-3, a sediment-bottomed limnocorral with added (low) moss-peat, 1982. (For sample sizes, see Table A.3.19).

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	301-306	60	2.00			0.60	698	17851	0.055	350239	0.96	1186	30317	998	25507
Aug 2	307-312	66	2.75			1.05	1793	45821	0.061	741669	1.28	1823	46596	1809	46234
Aug 16	313-318	71	3.31			1.25	3158	80713	0.064	1251957	1.52	2215	56608	2636	67391
Aug 30	319-380	71	3.45	2915	74505	1.28	4929	125990	0.040	2410850	1.67	3194	81644	4051	103541

Table A.3.21. Mercury content of yellow perch from HM82-4, a sediment-bottomed limnocorral with added (high) moss-peat 1982.

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	401	58	1.55			0.52	604	15440	0.047	328511	0.77	1266	32362	999	25537
	402	65	2.48			0.77	639	16334	0.055	296982	1.17	1064	27198	895	22878
	403	52	1.14			0.26	837	21396	0.049	436653	0.60	1685	43073	1429	36529
	404	61	1.77			0.55	699	17868	0.055	324873	0.89	1510	38599	1200	30675
	405	64	2.33			0.87	472	12065	0.057	211667	1.04	958	24489	737	18839
	406	60	1.88			0.61	563	14392	0.059	243932	0.93	1149	29371	917	23441
Aug 2	407	61	2.31			0.86	2562	65491	0.072	909597	0.98	2261	57797	2402	61401
	408	68	2.88			1.21	2324	59407	0.074	802797	1.31	2320	59305	2322	59356
	409	60	2.52			1.04	2556	65337	0.068	960838	1.03	2535	64801	2546	65082
	410	63	2.27			0.87	2794	71421	0.081	881741	1.09	2680	68507	2731	69811
	411	63	2.23			0.78	2786	71217	0.078	913038	1.02	2274	58129	2496	63804
	412	70	3.14			1.24	2249	57490	0.068	845441	1.43	1969	50332	2099	53655
Aug 16	413	69	3.99			1.51	2748	70245	0.074	949257	1.79	1927	49259	2303	58870
	414	69	3.32			1.42	5290	135225	0.120	1126875	1.30	3724	95194	4542	116104
	415	85	6.86			2.77	4929	125997	0.120	1049975	2.89	3232	82618	4063	103860
	416	70	3.29			1.23	3705	94709	0.072	1315403	1.36	2513	64238	3079	78707
	417	69	3.54			1.41	4628	118303	0.100	1183030	1.55	3369	86120	3969	101457
	418	74	4.34			1.72	4544	116155	0.110	1055955	1.85	3331	85148	3915	100077
Aug 30	419	79	5.04			2.09	5939	151815	0.084	1807321	2.08	3704	94683	4824	123313
	420	76	4.70			1.99	6378	163037	0.084	1940917	2.03	3580	91513	4965	126917
	421	73	3.72			1.49	5954	152198	0.092	1654326	1.68	3431	87704	4617	118021
	422	73	3.24			1.31	5088	130061	0.089	1461360	1.39	3113	79576	4071	104064
	423	76	4.08			1.75	6148	157157	0.086	1827407	1.77	3826	97802	4980	127301
	424	80	5.59			2.27	5305	135608	0.084	1614381	2.38	3170	81033	4212	107669
	425	71	4.11	3672	93865	1.40	5949	152071			1.92	3663	93635	4627	118277
	426	75	4.42	3238	82771	1.62	5148	131595			1.93	3011	76968	3986	101892
	427	73	4.17	3447	88113	1.45	6243	159586			1.86	3836	98057	4890	125000
	428	69	3.38	4153	106161	1.32	6277	160455			1.47	4228	108078	5197	132848
	429	79	5.44	3579	91488	1.93	6142	157004			2.26	3623	92612	4783	122265
	430	72	3.84	4595	117459	1.32	7533	192561			1.60	4530	115798	5888	150511
	431	69	3.29	2233	57081										
	432	77	4.70	2625	67101										
	433	89	7.20	1464	37423										
	434	71	3.70	3901	99719										
	435	82	5.92	3593	91846										
	436	75	4.26	4095	104678										
	437	84	6.02	4250	108640										
	438	89	7.33	3902	99744										
	439	79	5.37	1940	49591										
	440	82	5.89	2016	51534										
	441	70	3.38	1911	48850										
	442	72	3.98	2170	55470										
	443	80	5.34	2314	59151										
	444	74	4.29	4367	111631										
	445	72	3.88	3765	96242										
	446	81	5.68	3428	87628										
	447	84	6.33	3448	88139										
	448	81	5.86	3289	84075										
	449	73	4.53	3207	81979										
	450	70	3.90	2700	69018										
	451	79	5.40	3273	83666										
	452	84	6.24	3143	80343										
	453	74	4.76	2253	57592										
	454	67	3.24	2674	68354										
	455	85	6.71	1871	47827										
	456	79	5.26	1649	42152										
	457	72	3.62	1991	50895										
	458	77	4.64	2945	75281										
	459	78	4.86	3675	93942										
	460	69	3.45	2903	74208										
	461	81	5.77	6230	159254										
	462	80	5.16	3241	82848										

Table A.3.22. Mean mercury content of yellow perch from HM82-4,a sediment-bottomed limnocorral with added (high) moss-peat, 1982. (For sample sizes, see Table A.3.21).

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	401-406	60	1.86			0.60	636	16249	0.054	307103	0.90	1272	32515	1030	26317
Aug 2	407-412	64	2.56			1.00	2545	65061	0.074	885575	1.14	2340	59812	2433	62185
Aug 16	413-418	73	4.22			1.68	4307	110106	0.099	1113416	1.79	3016	77096	3645	93179
Aug 30	419-462	77	4.81	3136	80152	1.66	6009	153596	0.087	1717619	1.86	3643	93122	4753	121507

Table A.3.23. Mercury content of yellow perch from OC82-5, a sediment-bottomed control limnocorral, used for the second consecutive year, 1982.

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	501	60	2.24			0.71	4	102	0.083	1229	1.04	10	256	8	204
	502	66	2.91			1.05	109	2786	0.059	47220	1.25	160	4090	137	3502
	503	58	1.65			0.50	26	665	0.120	5542	0.73	32	818	30	767
	504	57	1.47			0.47	207	5291	0.120	44092	0.68	333	8512	282	7209
	505	62	1.98			0.68	154	3937	0.093	42333	0.87	233	5956	198	5061
	506	69	3.21			1.14	11	281	0.066	4258	1.45	29	741	21	537
Aug 2	507	61	2.11			0.87	38	971	0.040	24275	0.91	84	2147	62	1585
	508	65	2.20			0.78	64	1636	0.042	38952	1.17	126	3221	101	2582
	509	65	2.41			0.85	256	6544	0.049	133551	1.22	297	7592	280	7157
	510	72	3.49			1.30	41	1048	0.057	18386	1.76	81	2071	64	1636
Aug 16	511	59	2.10			0.76	656	16769	0.045	372644	0.93	568	14519	608	15542
	512	65	3.09			1.17	645	16488	0.076	216947	1.39	482	12321	556	14213
	513	71	3.69			1.30	490	12526	0.061	205344	1.67	488	12474	489	12500
	514	73	4.27			1.58	1027	26253	0.068	386074	1.83	676	17280	839	21447
	515	72	3.97			1.38	549	14034	0.053	264792	1.76	386	9867	458	11708
	516	73	4.03			1.57	667	17050	0.059	288983	1.79	414	10583	532	13599
Aug 30	517	83	6.32			2.58	1532	39162	0.034	1151824	2.79	1065	27224	1289	32950
	518	74	4.52			1.74	695	17766	0.030	592200	1.95	613	15670	652	16667
	519	74	4.16			1.65	1002	25613	0.050	512260	1.86	771	19709	880	22495
	520	74	4.17			1.63	1218	31135	0.034	915735	1.88	834	21319	1012	25869
	521	74	3.95			1.64	415	10608	0.038	279158	1.64	401	10251	408	10429
	522	75	4.52			1.87	929	23747	0.019	1249842	1.83	692	17689	812	20757
	523	75	4.57	753	19248	1.52	1404	35890			1.92	786	20092	1059	27071
	524	70	3.75	871	22265	1.22	1348	34458			1.58	899	22981	1095	27991
	525	67	3.12	798	20399	1.06	1327	33921			1.41	704	17996	971	24821
	526	66	2.69	494	12628	0.83	668	17076			1.30	432	11043	524	13395
	527	64	2.82	1232	31493	1.01	1732	44274			1.27	1005	25690	1327	33921
	528	67	3.28	676	17280	1.19	911	23287			1.45	654	16718	770	19683
	529	70	3.75	1191	30445										

Table A.3.24. Mean mercury content of yellow perch from OC82-5, a sediment-bottomed control limnocorral, used for the second consecutive year, 1982. (For sample sizes, see Table A.3.23).

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	501-506	62	2.24			0.76	85	2177	0.090	24112	1.00	133	3396	113	2880
Aug 2	507-510	66	2.55			0.95	100	2550	0.047	53791	1.27	147	3758	127	3240
Aug 16	511-516	69	3.53			1.29	672	17187	0.060	289131	1.56	502	12841	580	14835
Aug 30	517-529	72	3.97	859	21965	1.50	1098	28078	0.034	783503	1.74	738	18865	900	23004

Table A.3.25. Mercury content of yellow perch from CR2-6, a sediment-bottomed control limnocorral, 1982.

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	601	53	1.46			0.49	765	19555	0.066	296288	0.69	1406	35941	1140	29141
	602	59	1.83			0.65	530	13548	0.070	193543	0.87	1342	34305	995	25435
	603	58	1.85			0.67	741	18942	0.055	344400	0.87	1349	34484	1084	27710
	604	55	1.31			0.48	648	16564	0.055	301164	0.60	1532	39162	1139	29116
	605	57	2.03			0.66	617	15772	0.042	375524	0.95	1430	36554	1097	28042
	606	61	2.12			0.76	472	12065	0.045	268111	0.93	1190	30419	867	22163
Aug 2	607	60	1.97			0.61	428	10941	0.036	303917	1.00	1115	28502	855	21856
	608	65	2.27			0.85	386	9867	0.055	179400	1.18	1482	37883	1023	26150
	609	65	2.74			1.02	282	7209	0.061	118180	1.33	736	18814	539	13778
	610	72	3.34			1.28	315	8052	0.042	191714	1.55	847	21651	606	15491
	611	65	2.71			0.97	186	4755	0.038	125132	1.27	683	17459	468	11963
	612	66	2.80			1.08	411	10506	0.047	223532	1.32	889	22725	674	17229
Aug 16	613	67	2.56			0.83	447	11426	0.074	154405	1.28	697	17817	599	15312
	614	70	3.76			1.32	797	20373	0.076	268066	1.57	864	22086	833	21293
	615	73	3.99			1.53	494	12628	0.051	247608	1.56	699	17868	597	15261
	616	74	3.63			1.36	351	8972	0.057	157404	1.79	687	17561	542	13855
	617	70	2.76			1.06	586	14980	0.066	226970	1.21	855	21856	729	18635
	618	67	2.77			1.02	454	11605	0.055	211000	1.23	884	22597	689	17612
Aug 30	619	74	4.12			1.68	559	14289	0.023	621261	1.78	645	16488	603	15414
	620	83	5.31			2.13	365	9330	0.032	291563	2.58	501	12807	439	11222
	621	84	5.99			2.47	427	10915	0.035	311857	2.66	592	15133	513	13113
	622	74	3.56			1.38	639	16334	0.024	680583	1.61	779	19913	714	18252
	623	66	3.07			1.14	666	17025	0.063	270238	1.39	662	16922	664	16973
	624	76	4.18			1.65	507	12960	0.028	462857	1.84	659	16846	587	15005
	625	79	4.73	569	14545	1.67	538	13753							
	626	70	3.52	668	17076	1.29	632	16155	These fish (#625-#630) were dissected for muscle, skin, gut, liver, gills and carcass. (See Table A.3.31 for complete mercury data)						
	627	60	1.70	922	23569	0.53	829	21191							
	628	70	3.12	753	19248	1.20	712	18200							
	629	84	6.37	485	12398	2.34	361	9228							
	630	80	5.09	647	16539	1.85	342	8742							
	631	70	3.16	1152	29448	1.00	943	24105			1.50	1141	29167	1062	27147
	632	69	3.29	547	13983	1.10	450	11503			1.41	676	17280	577	14749
	633	72	3.72	758	19376	1.15	582	14877			1.73	811	20731	720	18405
	634	73	3.75	823	21038	1.28	727	18584			1.61	927	23696	838	21421
	635	76	4.79	479	12244	1.55	451	11529			1.91	622	15900	545	13931
	636	70	3.33	781	19964	1.14	519	13267			1.49	535	13676	528	13497
	637	75	4.11	772	19734										
	638	64	2.56	764	19530										
	639	67	2.82	659	16846										
	640	66	3.08	836	21370										
	641	67	2.65	504	12883										
	642	67	2.70	953	24361										
	643	69	3.21	838	21421										
	644	65	2.62	958	24489										
	645	64	2.78	662	16922										
	646	70	3.73	662	16922										
	647	70	3.47	750	19172										
	648	66	2.75	726	18558										
	649	74	4.31	704	17996										
	650	66	3.16	816	20859										
	651	78	5.72	711	18175										
	652	66	3.06	709	18124										
	653	73	3.86	740	18916										
	654	71	3.64	741	18942										
	655	75	4.16	524	13395										
	656	66	2.71	1025	26201										
	657	62	2.38	781	19964										
	658	58	2.05	717	18328										
	659	67	3.17	806	20603										
	660	67	3.17	888	22699										
	661	76	4.76	483	12347										
	662	67	2.83	698	17843										
	663	63	2.62	817	20884										
	664	70	3.27	672	17178										
	665	67	2.98	846	21626										
	666	66	2.79	664	16973										
	667	67	2.96	716	18303										
	668	68	3.14	711	18175										
	669	70	3.57	729	18635										
	670	69	2.99	806	20603										
	671	72	4.11	640	16360										
	672	66	2.58	754	19274										
	673	70	3.43	664	16973										
	674	67	2.74	647	16539										
	675	77	4.61	576	14724										
	676	66	2.69	964	24642										
	677	72	3.50	659	16846										
	678	78	5.00	540	13804										
	679	72	3.28	662	16922										

Table A.3.26. Mean mercury content of yellow perch from C82-6, a sediment-bottomed control limnocorral, 1982. (For sample sizes, see Table A.3.25).

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	601-606	57	1.77			0.62	629	16074	0.056	296505	0.82	1375	35144	1054	26935
Aug 2	607-612	66	2.64			0.97	335	8555	0.047	190313	1.28	959	24506	694	17745
Aug 16	613-618	70	3.25			1.19	522	13331	0.063	210909	1.44	781	19964	665	16995
Aug 30	619-679	70	3.52	729	18627	1.48	569	14555	0.023	439727	1.79	713	18213	649	16594

Table A.3.27. Mercury content of yellow perch from HS82-7, a sediment-bottomed limnocorral with added (high) bank clay, 1982.

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	701	67	2.68			1.04	288	7362	0.059	124780	1.29	566	14468	442	11299
	702	59	1.51			0.50	673	17203	0.064	268797	0.73	885	22623	799	20424
	703	65	2.47			0.95	412	10532	0.064	164563	1.15	713	18226	577	14749
	704	59	1.86			0.67	458	11708	0.047	249106	0.91	839	21447	677	17306
	705	64	2.56			0.88	601	15363	0.053	289868	1.12	967	24719	806	20603
	706	64	2.29			0.85	371	9484	0.038	249579	1.08	742	18967	579	14801
Aug 2	707	62	2.73			1.04	1518	38804	0.055	705527	1.20	1335	34126	1420	36299
	708	67	2.53			0.89	776	19836	0.040	495900	1.23	885	22623	839	21447
	709	57	1.85			0.63	1479	37807	0.057	663281	0.87	1356	34663	1408	35992
	710	62	2.08			0.72	1679	42919	0.057	752965	0.99	1608	41104	1638	41871
	711	71	3.37			1.25	600	15337	0.040	383425	1.53	683	17459	646	16513
	712	65	2.36			0.80	1388	35481	0.042	844786	1.18	1495	38216	1452	37117
Aug 16	713	76	3.98			1.36	2558	65389	0.074	883635	1.92	1902	48620	2174	55573
	714	62	1.80			0.62	1581	40414	0.047	859872	0.93	1111	28400	1299	33206
	715	57	1.60			0.49	4357	111375	0.059	1887712	0.74	2401	61375	3180	81288
	716	70	2.77			1.00	947	24208	0.053	456755	1.36	743	18993	829	21191
	717	68	2.69			1.00	3243	82899	0.055	1507255	1.28	2263	57848	2693	68839
	718	62	2.06			0.76	3322	84918	0.066	1286636	0.98	2116	54090	2643	67561
Aug 30	719	72	3.47			1.38	2659	67970	0.087	781264	1.60	1654	42280	2119	54167
	720	74	3.75			1.32	3308	84560	0.087	971954	1.74	2019	51610	2575	65823
	721	78	4.36			1.68	1672	42740	0.083	514940	1.99	986	25204	1300	33231
	722	65	2.56			1.00	3324	84969	0.100	849690	1.21	2390	61094	2813	71907
	723	72	3.02			1.03	2967	75844	0.100	758440	1.62	1711	43737	2199	56212
	724	65	2.42			0.92	3877	99105	0.110	900955	1.04	2015	51508	2889	73850
	725	69	3.16	2266	57924	0.98	3480	88957			1.42	2438	62321	2863	73185
	726	62	2.45	2813	71907	0.73	4503	115107			1.16	2853	72929	3490	89213
	727	64	2.76	2138	54652	0.91	3504	89571			1.35	2028	51840	2622	67025
	728	82	4.93	1767	45169	1.44	2793	71396			2.38	1846	47188	2203	56314
	729	70	3.38	1556	39775	1.15	2970	75920			1.52	1493	38165	2129	54422
	730	66	2.77	2826	72239	0.97	3832	97955			1.33	2708	69223	3182	81339
	731	63	2.31	2209	56467										
	732	66	2.55	2562	65491										
	733	71	3.42	1880	48057										
	734	71	3.50	1085	27735										
	735	65	2.44	2034	51994										
	736	66	2.48	2359	60302										
	737	67	2.76	2569	65670										
	738	66	2.80	2477	63318										
	739	60	2.08	2155	55087										
	740	71	2.97	2505	64034										
	741	60	2.20	2374	60685										
	742	71	3.11	1761	45015										
	743	70	3.16	1904	48671										
	744	65	2.51	1899	48543										
	745	62	2.36	1942	49642										
	746	67	2.76	3217	82234										
	747	61	2.25	2157	55138										
	748	57	1.85	2607	66641										
	749	77	4.51	1456	37219										
	750	61	2.49	2790	71319										
	751	67	3.08	2676	68405										
	752	66	2.52	2883	73696										
	753	66	2.70	2486	63548										
	754	77	4.58	755	19300										
	755	63	2.26	987	25230										
	756	63	2.44	2616	66871										
	757	66	2.66	1897	48492										
	758	76	4.48	804	20552										
	759	67	2.87	3090	78988										
	760	71	3.95	763	19504										
	761	67	2.84	2260	57771										
	762	66	2.77	2600	66462										
	763	67	3.13	1674	42791										
	764	64	2.55	2810	71830										
	765	67	2.83	2575	65823										
	766	64	2.79	2640	67485										
	767	72	3.65	1379	35251										
	768	70	3.21	990	25307										
	769	66	2.59	3139	80240										
	770	69	2.74	2192	56033										
	771	68	2.56	1945	49719										

Table A.3.28. Mean mercury content of yellow perch from HS82-7, a sediment-bottomed limnocorral with added (high) bank clay, 1982. (For sample sizes, see Table A.3.27).

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	701-706	63	2.23			0.82	467	11942	0.054	224449	1.05	785	20075	647	16530
Aug 2	707-712	64	2.49			0.89	1240	31697	0.049	640981	1.17	1227	31365	1234	31540
Aug 16	713-718	66	2.48			0.87	2668	68201	0.059	1146978	1.2	1756	44888	2136	54610
Aug 30	719-771	68	2.96	2138	54643	1.13	3241	82841	0.095	796207	1.53	2012	51425	2532	64724

Table A.3.29. Mercury content of yellow perch from OM82-8, a sediment-bottomed limnocorral with added (low) moss from 1981 and used for the second consecutive year, 1982.

		Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Ttl lgth (mm)	Rnd Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 19,21	801	63	2.22			0.76	654	16790	0.098	171327	1.14	979	25133	849	21796
	802	60	1.82			0.68	1011	25955	0.130	199654	0.91	1249	32065	1147	29446
	803	61	2.10			0.79	501	12862	0.085	151318	0.93	958	24594	748	19203
	804	65	2.27			0.74	563	14454	0.068	212559	1.09	784	20127	695	17842
	805	65	2.32			0.87	680	17457	0.087	200655	1.11	1047	26879	886	22746
	806	67	2.22			0.92	576	14787	0.085	173965	1.01	750	19254	667	17124
Aug 2	807	66	2.48			0.81	1861	47777	0.140	341264	1.35	1876	48162	1870	48008
	808	72	3.16			1.18	1584	40665	0.130	312808	1.48	1342	34453	1449	37200
	809	68	3.11			1.20	1722	44208	0.130	340062	1.43	1659	42591	1688	43335
	810	56	1.80			0.57	1051	26982	0.076	355026	0.87	1118	28702	1091	28009
	811	66	2.59			0.97	1214	31167	0.110	283336	1.25	1198	30756	1205	30936
	812	71	3.78			1.42	1053	27033	0.093	290677	1.66	951	24415	998	25621
Aug 16	813	77	4.63			1.70	1601	41102	0.120	342517	2.07	1145	29395	1351	34684
	814	68	2.75			1.10	1864	47854	0.130	368108	1.23	1332	34196	1583	40640
	815	65	2.60			0.99	3647	93628	0.210	445848	1.20	2458	63103	2995	76890
	816	78	4.45			1.77	1114	28599	0.110	259991	1.90	978	25108	1044	26802
	817	71	3.42			1.32	2106	54067	0.150	360447	1.51	1594	40922	1833	47058
	818	76	4.40			1.74	2049	52603	0.130	404638	1.85	1582	40614	1808	46416
Aug 30	819	76	4.11			1.67	1322	33939	0.130	261069	1.78	1075	27598	1195	30679
	820	73	3.93			1.59	1921	49317	0.150	328780	1.72	1238	31783	1566	40203
	821	69	3.01			1.20	2700	69316	0.190	364821	1.29	1573	40383	2116	54323
	822	79	5.08			2.12	1577	40486	0.140	289186	2.08	1214	31167	1397	35865
	823	75	4.32			1.76	1692	43438	0.190	228621	1.93	1158	29729	1413	36275
	824	70	3.20			1.31	3201	82178	0.260	316069	1.37	1755	45055	2462	63206
	825	70	4.05	1459	37456	1.43	2282	58585			1.80	1281	32887	1724	44260
	826	69	3.17	1245	31962	1.18	1912	49086			1.36	1325	34016	1598	41025
	827	78	4.99	1817	46647	1.73	2869	73655			2.23	1857	47674	2299	59021
	828	71	3.32	1908	48983	1.22	2869	73655			1.55	1607	41256	2163	55530
	829	71	3.61	1522	39074	1.24	2418	62076			1.74	1692	43438	1994	51191
	830	70	3.50	2087	53579	1.23	3227	82846			1.61	2274	58380	2687	68982
	831	74	4.25	1443	37046										
	832	72	3.89	1612	41384										
	833	75	4.42	1422	36506										
	834	74	3.77	1374	35274										
	835	72	3.85	1306	33528										
	836	81	6.00	1211	31090										
	837	66	2.93	2256	57917										
	838	82	6.41	1362	34966										
	839	71	3.77	1873	48085										
	840	64	2.59	2994	76864										
	841	73	4.27	1282	32912										
	842	72	3.20	3109	79816										
	843	76	4.56	1383	35505										
	844	75	4.55												
	845	65	2.78	3046	78199										
	846	64	2.82	2260	58020										
	847	77	5.44	811	20820										
	848	72	4.30	4045	103846										
	849	68	3.14	2415	61999										
	850	77	4.40	1361	34940										
	851	77	5.19	1428	36661										
	852	83	6.13	1117	28676										
	853	78	5.19	638	16379										
	854	69	3.27	2168	55658										
	855	70	3.87	1154	29626										
	856	73	4.38	3017	77454										
	857	74	4.06	1551	39818										
	858	73	3.96	1652	42411										
	859	81	5.49	1009	25904										
	860	82	5.77	1145	29395										
	861	65	2.56	2245	57635										
	862	66	2.79	2749	70574										
	863	84	5.94	1017	26109										
	864	74	4.53	1378	35377										
	865	76	5.06	1893	48598										

Table A.3.30. Mean mercury content of yellow perch from OM82-8, a sediment-bottomed limnocorral with added (low) moss from 1981 and used for the second consecutive year, 1982. (For sample sizes, see Table A.3.29).

Date(s) sampled	Fish no.	Whole fish				Muscle tissue					Carcass			Combined muscle/carcass	
		Ttl lgth (mm)	Rnd wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 3,5	Time 0	56	1.43			0.53			0.043						
July 19,21	801-806	64	2.16			0.79	664	17051	0.092	184913	1.03	961	24675	832	21360
Aug 2	807-812	67	2.82			1.03	1414	36305	0.113	320529	1.34	1357	34847	1384	35518
Aug 16	813-818	73	3.71			1.44	2064	52976	0.142	363592	1.63	1515	38890	1769	45415
Aug 30	819-865	73	4.17	1769	45417	1.47	2333	59881	0.177	298091	1.71	1504	38614	1885	48380

Table A.3.31. Distribution of ^{203}Hg activity (cpm/g & dpm/g) and total ^{203}Hg burden (cpm & dpm) in yellow perch organs and tissues at the end (Aug 30) of the limnocorral experiment, 1982.

Limnocorral treatment (designator)	Fish no.	Whole fish					Muscle					Skin					Liver				
		Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)
Control (C82-6)	625	4.73	569	14545	2691	68788	1.67	538	13753	898	22955	0.31	480	12270	149	3809	0.02	3998	102198	80	2045
	626	3.52	668	17076	2351	60097	1.29	632	16155	815	20833	0.19	539	13778	102	2607	0.03	3684	94172	111	2837
	627	1.70	922	23569	1567	40056	0.53	829	21191	439	11222	0.09	700	17894	63	1610	0.01	4399	112449	44	1125
	628	3.12	753	19248	2349	60046	1.20	712	18200	854	21830	0.19	613	15670	116	2965	0.04	4441	113522	178	4550
	629	6.37	485	12398	3089	78962	2.34	361	9228	845	21600	0.36	357	9126	129	3298	0.09	3137	80189	282	7209
	630	5.09	647	16539	3293	84177	1.85	342	8742	633	16181	0.28	418	10685	117	2991	0.04	5249	134177	210	5368
	Means:	4.09	674	17229	2557	65354	1.48	569	14545	747	19104	0.24	518	13237	113	2880	0.04	4151	106118	151	3856
Low Moss (LM82-3)	325	2.32	3059	78195	7097	181416	0.79	4963	126866	3921	100230	0.10	3121	79780	312	7975	0.01	6944	177505	69	1764
	326	2.36	3488	89162	8232	210429	0.82	5502	140644	4512	115337	0.14	3005	76815	421	10762	0.01	8484	216871	85	2173
	327	2.37	3478	88906	8243	210711	0.93	5392	137832	5015	128195	0.14	2644	67587	370	9458	0.03	6676	170654	200	5112
	328	4.40	2784	71166	12250	313139	1.46	4394	112321	6415	163983	0.37	2806	71728	1038	26534	0.02	5991	153144	120	3067
	329	4.41	1982	50665	8741	223441	1.50	2970	75920	4455	113880	0.33	1802	46063	595	15210	0.04	5932	151636	237	6058
	330	3.36	2879	73594	9673	247265	1.26	4351	111222	5482	140133	0.20	1995	50997	399	10199	0.02	5018	128272	100	2556
	Means:	3.20	2945	75281	9039	231067	1.13	4595	117468	4967	126960	0.21	2562	65495	523	13356	0.02	6508	166347	135	3455

Limnocorral treatment (designator)	Fish no.	Gut					Gill					Carcass					Tissue/organ totals				
		Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm)	^{203}Hg (dpm)	Total[1] Wt (g)	Combined[2] ^{203}Hg (cpm/g)	Combined[2] ^{203}Hg (dpm/g)	Total[1] ^{203}Hg (cpm)	Total[1] ^{203}Hg (dpm)
Control (C82-6)	625	0.30	1780	45501	534	13650	0.14	1419	36273	199	5087	1.53	671	17152	1027	26253	3.97	727	18584	2887	73799
	626	0.26	1458	37270	379	9688	0.08	1304	33333	104	2658	1.16	712	18200	826	21115	3.01	777	19862	2337	59739
	627	0.18	1597	40823	287	7336	0.06	1748	44683	105	2684	0.57	1078	27556	614	15695	1.44	1079	27582	1552	39673
	628	0.17	1838	46984	312	7975	0.09	1582	40440	142	3630	1.03	853	21805	879	22469	2.72	912	23313	2481	63420
	629	0.71	1144	29243	812	20757	0.24	1038	26534	249	6365	1.84	497	12704	914	23364	5.58	579	14801	3231	82592
	630	0.36	3439	87909	1238	31646	0.22	1236	31595	272	6953	1.65	611	15619	1008	25767	4.40	790	20194	3478	88906
	Means:	0.33	1876	47955	594	15175	0.14	1388	35476	179	4563	1.30	737	18839	878	22444	3.52	811	20723	2661	68022
Low Moss (LM82-3)	325	0.09	4328	110634	390	9969	0.06	4518	115491	271	6927	0.75	3440	87935	2580	65951	1.80	4191	107132	7543	192817
	326	0.13	3098	79192	403	10302	0.06	4909	125486	295	7541	0.80	3898	99642	3118	79703	1.96	4507	115210	8834	225818
	327	0.12	4089	104525	491	12551	0.06	4511	115312	271	6927	0.80	3885	99310	3108	79448	2.08	4545	116181	9455	241692
	328	0.28	2705	69146	757	19351	0.14	3897	99617	546	13957	1.51	3358	85838	5071	129627	3.78	3690	94325	13947	356518
	329	0.21	2785	71191	585	14954	0.15	3473	88778	521	13318	1.50	2285	58410	3428	87628	3.73	2633	67306	9821	251048
	330	0.17	1577	40312	268	6851	0.11	3414	87270	376	9611	1.07	3047	77889	3260	83333	2.83	3493	89289	9885	252684
	Means:	0.17	3097	79167	482	12330	0.10	4120	105326	380	9714	1.07	3319	84837	3428	87615	2.70	3843	98241	9914	253430

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[1] Sum of values for muscle, skin, liver, gut, gill and carcass.
[2] Mathematical combination of values for muscle, skin, liver, gut, gill and carcass.

Table A.3.32. "Time zero" data on yellow perch, 1983.

		Whole fish		Muscle	
Date(s) sampled	Fish no.	Total length (mm)	Round weight (g)	Wt (g)	Total Hg (µg/g)
July 8	1	73	3.91	1.48	0.120
	2	73	4.35	1.76	0.120
	3	73	3.70		
	4	79	4.61		
	5	64	2.12	0.81	0.140
	6	74	3.56		
	7	77	3.98		
	8	80	4.56		
	9	72	3.32		
	10	67	2.79	1.17	0.078
	11	74	3.90		
	12	70	2.98		
	13	72	3.11	1.28	0.074
	14	75	3.59		
	15	77	4.37		
	16	67	2.87	1.15	0.100
	17	70	2.94		
	18	78	5.16	1.87	0.088
	19	75	3.88		
	20	71	3.38		
	21	80	5.06		
July 10	22	71	3.47		
	23	64	2.25	0.82	0.130
	24	79	4.36		
	25	67	2.60	0.96	0.120
	26	62	1.92		
	27	60	1.58		
	28	76	3.84		
June 30	29	66	2.21	0.75	0.066
July 2	30	65	2.29		
July 10	31	79	4.69	2.05	0.052
	32	89	7.28	3.03	0.062
	33	75	4.10		

Table A.3.33. Mercury content of yellow perch from DFM83-1, a limnocorral located over a flooded, "disturbed" moss/sedge/grass bottom and used for the second consecutive year, 1983.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	101	76	4.24	1.39	616	15746	0.100	157460	2.38	813	20782	740	18916
	102	76	3.51	1.18	403	10302	0.088	117068	1.90	709	18124	592	15133
	103	71	2.99	1.14	487	12449	0.081	153691	1.50	848	21677	692	17689
	104	73	3.44	1.35	654	16718	0.056	298536	1.71	1141	29167	926	23671
	105	73	3.45	1.21	504	12883	0.052	247750	1.70	769	19657	659	16846
	106	66	2.83	0.90	573	14647	0.120	122058	1.49	790	20194	708	18098
Aug 10	107	82	6.16	2.28	3076	78630	0.110	714818	2.76	2367	60506	2688	68712
	108	78	6.08	2.16	1557	39801	0.095	418958	2.80	1320	33742	1423	36375
	109	93	9.11	3.36	2064	52761	0.100	527610	4.30	1378	35225	1679	42919
	110	84	7.34	2.74	1551	39647	0.097	408732	3.17	1384	35378	1461	37347
	111	76	5.22	2.01	1866	47699	0.091	524165	2.42	1376	35174	1598	40849
	112	92	8.43	3.43	1288	32924	0.078	422103	3.36	997	25486	1144	29243
Aug 29	113	91	8.26	3.18	7526	192382	0.190	1012537	3.86	4924	125869	6099	155905
	114	80	5.58	2.04	6664	170348	0.170	1002047	2.43	3805	97265	5110	130624
	115	93	8.04	3.26	4815	123083	0.160	769269	3.52	3049	77940	3898	99642
	116	91	8.36	3.27	4657	119044	0.120	992033	3.86	3073	78553	3799	97111
	117	88	7.27	2.90	4963	126866	0.140	906186	3.05	3299	84330	4110	105061
	118	97	8.89	3.76	3133	80087	0.100	800870	3.95	2293	58615	2703	69095
	119	86	7.15	2.59	4955	126662	0.130	974323	3.20	3252	83129	4014	102607
	120	97	8.99	3.24	4805	122827	0.140	877336	4.05	3236	82720	3933	100537
	121	85	6.73	2.63	7665	195936	0.190	1031242	3.16	4962	126840	6190	158231
	122	90	8.64	3.32	4784	122290	0.130	940692	3.72	3193	81621	3943	100792

Table A.3.34. Mean mercury content of yellow perch from DFM83-1, a limnocorral located over a flooded, "disturbed" moss/sedge/grass bottom and used for the second consecutive year, 1983. (For sample sizes, see Table A.3.33).

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30- July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	101-106	73	3.41	1.20	540	13791	0.083	182761	1.78	845	21600	720	18392
Aug 10	107-112	84	7.06	2.66	1900	48577	0.095	502731	3.14	1470	37585	1666	42574
Aug 29	113-122	90	7.79	3.02	5397	137953	0.147	930654	3.48	3509	89688	4380	111961

Table A.3.35. Mercury content of yellow perch from SP83-2, a sediment-bottomed limnocorral with added black spruce boughs, 1983. (Shortly after the July 21 sample, the limnocorral went anoxic, killing all remaining fish).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	201	75	3.87	1.42	774	19785	0.110	179864	2.05	1019	26048	919	23492
	202	80	5.41	1.98	521	13318	0.120	110983	2.76	685	17510	616	15746
	203	65	2.12	0.73	1336	34151	0.110	310464	1.11	1458	37270	1410	36043
	204	76	3.81	1.37	839	21447	0.076	282197	2.05	873	22316	859	21958
	205	73	2.97	1.16	286	7311	0.044	166159	1.43	474	12117	390	9969
	206	70	3.00	1.11	760	19427	0.120	161892	1.57	939	24003	865	22111
	207	79	3.70	1.62	323	8257	0.058	142362	1.65	386	9867	355	9075
	208	77	4.16	1.84	324	8282	0.062	133581	1.93	319	8154	321	8206
MEANS:													
June 30-July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	201-208	74	4.00	1.40	645	16497	0.088	185938	1.82	769	19661	717	18325

Table A.3.36. Mercury content of yellow perch from LM83-3, a sediment-bottomed limnocorral with added (low) moss, 1983.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	301	67	2.73	1.08	463	11835	0.100	118350	1.27	797	20373	644	16462
	302	65	2.47	1.01	526	13446	0.069	194870	1.16	803	20527	674	17229
	303	74	4.21	1.59	440	11247	0.087	129276	1.91	816	20859	645	16488
	304	76	4.14	1.60	439	11222	0.120	93517	1.91	826	21115	650	16616
	305	82	6.00	2.40	204	5215	0.094	55479	2.90	527	13471	381	9739
	306	84	5.76	2.15	206	5266	0.100	52660	3.05	505	12909	381	9739
Aug 10	307	87	6.43	2.72	2575	65823	0.130	506331	2.98	2686	68661	2633	67306
	308	80	5.07	1.82	2502	63957	0.130	491977	2.35	2452	62679	2474	63241
	309	85	6.46	2.39	1748	44683	0.120	372358	3.05	1945	49719	1858	47495
	310	80	5.30	1.91	1648	42127	0.100	421270	2.46	1866	47699	1771	45271
	311	85	6.00	2.41	3084	78834	0.160	492713	2.47	3126	79908	3105	79371
	312	94	8.53	3.30	1192	30470	0.072	423194	3.93	1409	36017	1310	33487
Aug 29	313	94	8.18	3.26	4826	123364	0.180	685356	3.50	3103	79320	3934	100562
	314	92	8.17	3.32	3549	90721	0.110	824736	3.64	2203	56314	2845	72725
	315	90	7.08	2.80	7947	203144	0.240	846433	3.00	5694	145552	6782	173364
	316	82	5.59	2.40	5572	142434	0.150	949560	2.47	3894	99540	4721	120680
	317	108	11.59	4.62	1355	34637	0.100	346370	5.46	1156	29550	1247	31876
	318	78	4.34	1.84	5321	136017	0.170	800100	1.92	3396	86810	4338	110890
	319	100	9.45	3.76	4233	108206	0.160	676288	4.23	2871	73390	3512	89775
	320	80	5.05	2.11	5130	131135	0.120	1092792	2.42	3553	90823	4288	109611
	321	94	7.97	3.10	4669	119351	0.170	702065	3.98	3100	79243	3787	96805
	322	93	8.66	3.38	2794	71421	0.120	595175	3.91	1913	48901	2321	59330
	323	86	6.97	2.85	3778	96575	0.140	689821	3.32	2411	61631	3042	77761
	324	94	8.96	3.64	3197	81723	0.120	681025	3.97	2591	66232	2881	73645
	325	83	6.07	2.28	5762	147290	0.160	920563	2.81	3849	98390	4706	120297
	326	81	5.18	2.03	11042	282260	0.260	1085615	2.26	6974	178272	8899	227480
	327	92	9.52	3.58	3896	99591	0.120	829925	4.03	2566	65593	3192	81595

Table A.3.37. Mean mercury content of yellow perch from LM83-3, a sediment-bottomed limnocorral with added (low) moss, 1983. (For sample sizes, see Table A.3.36).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30-July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	301-306	75	4.22	1.64	380	9705	0.095	107359	2.03	712	18209	563	14379
Aug 10	307-312	85	6.30	2.43	2125	54316	0.119	451307	2.87	2247	57447	2192	56029
Aug 29	313-327	90	7.52	3.00	4871	124525	0.155	781722	3.39	3285	83971	4033	103093

Table A.3.38. Mercury content of yellow perch from OC83-4, a sediment-bottomed control limnocorral, 1983.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	401	78	4.60	1.68	206	5266	0.150	35107	2.34	479	12244	365	9330
	402	79	4.72	1.65	198	5061	0.240	21088	2.48	488	12474	372	9509
	403	71	3.39	1.31	302	7720	0.140	55143	1.58	652	16667	493	12602
	404	68	3.15	1.15	387	9893	0.170	58194	1.64	699	17868	570	14571
	405	74	4.39	1.62	350	8947	0.640	13980	2.13	615	15721	501	12807
	406	90	6.83	2.49	166	4243	0.210	20205	3.58	434	11094	324	8282
Aug 10	407	75	4.80	1.84	1529	39085	0.970	40294	2.38	1315	33615	1408	35992
	408	84	6.33	2.24	2053	52480	0.940	55830	3.15	1535	39238	1750	44734
	409	84	5.79	2.29	2670	68252	1.380	49458	2.54	1900	48569	2265	57899
	410	86	6.71	2.62	1744	44581	1.130	39452	2.87	1270	32464	1496	38241
	411	83	6.10	2.49	1715	43839	0.800	54799	2.58	1547	39545	1630	41667
	412	86	6.72	2.69	1687	43124	1.090	39563	2.97	1483	37909	1580	40389
Aug 29	413	84	5.59	2.04	4261	108921	1.690	64450	2.48	2839	72572	3481	88983
	414	84	7.29	2.77	4206	107515	1.840	58432	3.12	2723	69606	3420	87423
	415	88	6.66	2.61	1947	49770	0.880	56557	2.93	1375	35148	1644	42025
	416	102	11.80	4.41	1382	35327	0.810	43614	4.83	1062	27147	1215	31058
	417	89	7.94	2.97	1735	44351	0.800	55439	3.01	1261	32234	1496	38241
	418	93	9.52	3.34	2380	60838	1.150	52903	4.01	1563	39954	1934	49438
	419	87	7.38	2.76	3115	79627	1.480	53802	2.91	2214	56595	2653	67817
	420	102	11.44	4.63	1415	36171	0.760	47593	5.10	1015	25946	1205	30803

Table A.3.39. Mean mercury content of yellow perch from OC83-4, a sediment-bottomed control limnocorral, 1983. (For sample sizes, see Table A.3.38).

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30- July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	401-406	77	4.51	1.65	268	6855	0.258	33953	2.29	561	14345	438	11184
Aug 10	407-412	83	6.08	2.36	1900	48560	1.052	46566	2.75	1508	38557	1688	43154
Aug 29	413-420	91	8.45	3.19	2555	65315	1.176	54099	3.55	1757	44900	2131	54474

Table A.3.40. Mercury content of yellow perch from OAS83-5, a sediment-bottomed limnocorral which had bank clay added in suspension in 1982, used without further treatment for the second consecutive year, 1983.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	501	73	3.47	1.18	429	10966	0.080	137075	1.56	987	25230	747	19095
	502	82	5.39	1.73	215	5496	0.093	59097	2.95	617	15772	468	11963
	503	73	3.25	1.03	454	11605	0.057	203596	1.67	1061	27122	829	21191
	504	72	3.93	1.39	281	7183	0.110	65300	2.04	815	20833	599	15312
	505	76	4.22	1.57	229	5854	0.081	72272	1.97	732	18712	509	13011
	506	66	2.66	0.86	752	19223	0.071	270746	1.29	1387	35455	1133	28962
Aug 10	507	85	6.38	2.46	1240	31697	0.130	243823	2.92	1242	31748	1241	31723
	508	80	5.76	2.20	831	21242	0.110	193109	2.63	848	21677	840	21472
	509	79	5.11	2.05	1125	28758	0.100	287580	2.11	1195	30547	1161	29678
	510	95	9.62	3.78	468	11963	0.072	166153	4.26	613	15670	545	13931
	511	76	4.90	1.85	2033	51968	0.120	433067	2.17	1708	42661	1858	47495
	512	74	4.42	1.65	1003	25639	0.110	233082	1.97	992	25358	997	25486
Aug 29	513	89	7.03	2.66	3217	82234	0.140	587386	3.03	2472	63190	2820	72086
	514	105	12.70	5.00	3032	77505	0.180	430583	5.31	2115	54064	2560	65440
	515	86	6.19	2.51	2348	60020	0.110	545636	2.79	1849	47265	2085	53298
	516	96	8.57	3.12	2089	53400	0.130	410769	4.06	1462	37372	1734	44325
	517	85	6.25	2.40	3312	84663	0.140	604736	2.81	2204	56339	2714	69376
	518	89	6.95	2.54	3034	77556	0.150	517040	3.06	2124	54294	2537	64852
	519	86	7.07	2.84	2180	55726	0.110	506600	3.26	1759	44964	1955	49974
	520	97	9.42	3.66	3364	85992	0.170	505835	3.80	2326	59458	2835	72469
	521	93	8.56	3.32	1734	44325	0.094	471543	4.00	1357	34688	1528	39059
	522	102	11.54	4.33	965	24668	0.110	224255	4.89	911	23287	936	23926
	523	90	7.39	2.89	1118	28579	0.088	324761	3.19	1130	28885	1124	28732
	524	90	7.80	3.06	2124	54294	0.120	452450	3.47	1503	38420	1794	45859
	525	91	7.20	2.88	2855	72981	0.120	608175	3.28	2326	59458	2573	65772
	526	93	7.36	2.87	1501	38369	0.097	395557	3.54	1268	32413	1372	35072
	527	80	5.25	1.94	5460	139571	0.190	734584	2.27	3888	99387	4612	117894
	528	80	5.38	1.96	2810	71830	0.150	478867	2.39	2032	51943	2383	60915
	529	80	5.57	2.13	2461	62909	0.160	393181	2.75	1962	50153	2180	55726
	530	95	8.78	3.26	2301	58819	0.140	420136	4.03	1610	41155	1919	49054
	531	79	5.62	2.34	3624	92638	0.170	544929	2.40	2795	71447	3204	81902
	532	97	10.29	3.90	3089	78962	0.150	526413	4.56	2104	53783	2558	65389

Table A.3.41. Mean mercury content of yellow perch from OAS83-5, a sediment-bottomed limnocorral which had bank clay added in suspension in 1982, used without further treatment for the second consecutive year, 1983. (For sample sizes, see Table A.3.40).

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30-July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	501-506	74	3.82	1.29	393	10055	0.082	134681	1.91	933	23854	714	18256
Aug 10	507-512	82	6.03	2.33	1117	28545	0.107	259469	2.68	1100	28110	1107	28298
Aug 29	513-532	90	7.75	2.98	2631	67252	0.136	484172	3.44	1960	50098	2271	58056

Table A.3.42. Mercury content of yellow perch from OM83-6, a sediment-bottomed limnocorral with moss-peat added in 1981, used for the third consecutive year, 1983. Most of the fish were believed to have escaped through holes which developed in the wall of the limnocorral.

Date(s) sampled	Fish no.	Whole fish			Muscle tissue					Carcass		Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	601	78	4.73	1.83	273	6979	0.099	70495	2.26	456	11656	374	9560
	602	78	4.66	1.93	196	5010	0.100	50100	2.33	470	12014	346	8845
	603	68	3.12	1.26	258	6595	0.079	83481	1.52	470	12014	374	9560
	604	70	3.20	1.33	310	7924	0.052	152385	1.55	549	14034	439	11222
MEANS:													
June 30- July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	601-604	74	3.93	1.59	259	6627	0.083	89115	1.92	486	12430	383	9797

Table A.3.43. Mercury content of yellow perch from LM83-7, a sediment-bottomed limnocorral with added (low) moss, 1983.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	701	81	5.40	2.09	176	4499	0.071	63366	2.62	454	11605	331	8461
	702	79	4.95	1.86	113	2889	0.096	30094	2.54	467	11938	317	8103
	703	80	4.77	1.69	241	6161	0.100	61610	2.41	509	13011	399	10199
	704	71	3.16	1.17	204	5215	0.080	65188	1.48	602	15389	426	10890
	705	63	2.31	0.80	321	8206	0.083	98867	1.06	763	19504	573	14647
Aug 10	706	89	7.15	2.81	1265	32336	0.095	340379	3.38	1017	25997	1130	28885
	707	76	4.20	1.55	1758	44939	0.100	449390	1.93	1312	33538	1511	38625
	708	78	4.47	1.69	2997	76610	0.110	696455	2.03	1821	46549	2355	60199
	709	76	4.66	1.60	2895	74003	0.120	616692	2.35	1916	48978	2313	59126
	710	73	3.59	1.35	1541	39392	0.110	358109	1.64	1185	30291	1346	34407
	711	91	7.17	2.93	1012	25869	0.140	184779	3.40	1050	26840	1032	26380
Aug 29	712	82	5.16	2.05	6223	159075	0.190	837237	2.10	3789	96856	4991	127582
	713	86	5.98	2.50	4456	113906	0.099	1150566	2.61	2584	66053	3500	89468
	714	91	7.15	2.97	4164	106442	0.120	887017	3.05	2663	68073	3404	87014
	715	90	7.41	2.92	6213	158819	0.130	1221685	2.84	4004	102352	5124	130982
	716	87	5.89	2.54	4176	106748	0.096	1111958	2.48	2726	69683	3460	88446
	717	90	7.83	3.11	2831	72367	0.120	603058	3.17	2035	52019	2429	62091
	718	90	6.71	2.68	4877	124668	0.120	1038900	2.85	3327	85046	4078	104243
	719	91	7.36	2.81	5078	129806	0.140	927186	3.34	3254	83180	4087	104473
	720	88	6.02	2.39	3545	90619	0.110	823809	2.70	2207	56416	2835	72469
	721	85	6.10	2.34	2498	63855	0.120	532125	2.55	1602	40951	2031	51917
	722	87	7.08	2.87	2390	61094	0.086	710395	2.90	1877	47981	2132	54499
	723	83	6.21	2.44	6018	153834	0.130	1183338	2.44	3930	100460	4974	127147
	724	92	7.56	3.06	3497	89392	0.088	1015818	3.40	2516	64315	2981	76201
	725	88	6.61	2.64	12413	317306	0.240	1322108	2.80	7469	190925	9868	252249
	726	79	4.99	2.01	4244	108487	0.100	1084870	2.17	2568	65644	3373	86222
	727	87	6.78	2.57	3865	98799	0.100	987990	3.26	2627	67152	3172	81084
	728	72	2.53	0.51	5851	149565	0.260	575250	1.25	3029	77428	3847	98338
	729	82	5.09	1.89	6398	163548	0.140	1168200	2.25	4189	107081	5197	132848
	730	78	4.62	1.79	4180	106851	0.150	712340	1.97	2959	75639	3540	90491
	731	87	6.35	2.24	5187	132592	0.110	1205382	3.01	3649	93277	4305	110046

Table A.3.44. Mean mercury content of yellow perch from LM83-7, a sediment-bottomed limnocorral with added (low) moss, 1983. (For sample sizes, see Table A.3.43).

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30-July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	701-705	75	4.12	1.52	211	5394	0.086	63825	2.02	559	14289	409	10460
Aug 10	706-711	81	5.21	1.99	1911	48858	0.113	440967	2.46	1384	35366	1615	41270
Aug 29	712-731	86	6.17	2.42	4905	125389	0.132	954962	2.66	3150	80527	3966	101391

Table A.3.45. Mercury content of yellow perch from LMS83-8, a sediment-bottomed limnocorral with added (low) moss and lake bottom sediment, 1983.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 20,21	801	69	3.30	1.39	400	10225	0.059	173305	1.51	684	17485	548	14008
	802	72	3.28	1.18	378	9663	0.073	132370	1.63	579	14801	495	12653
	803	71	3.51	1.48	336	8589	0.062	138532	1.55	594	15184	468	11963
	804	63	2.38	0.93	312	7975	0.062	128629	1.05	486	12423	404	10327
	805	83	5.48	2.40	268	6851	0.078	87833	2.53	498	12730	386	9867
	806	65	2.24	0.73	420	10736	0.071	151211	1.12	679	17357	577	14749
Aug 10	807	78	4.70	1.81	7814	199744	0.150	1331627	2.20	4991	127582	6265	160148
	808	85	5.85	2.33	6177	157899	0.130	1214608	2.79	4227	108052	5114	130726
	809	84	6.42	2.12	4663	119197	0.130	916900	2.91	3427	87602	3948	100920
	810	80	5.05	1.92	5087	130036	0.120	1083633	2.21	3378	86350	4172	106646
	811	75	4.64	1.83	4071	104064	0.110	946036	2.26	2928	74847	3439	87909
	812	78	4.70	1.77	2934	75000	0.096	781250	2.28	2113	54013	2472	63190
Aug 29	813	93	7.76	2.99	9298	237679	0.170	1398112	3.40	5076	129755	7052	180266
	814	91	7.76	2.92	11859	303144	0.190	1595495	3.46	6534	167025	8971	229320
	815	93	8.36	3.35	10121	258717	0.150	1724780	3.60	6216	158896	8098	207004
	816	88	7.77	2.82	3962	101278	0.084	1205690	3.34	2905	74259	3389	86631
	817	92	7.76	2.99	10044	256748	0.170	1510282	3.39	6080	155419	7938	202914
	818	93	8.21	3.02	9510	243098	0.150	1620653	3.38	5899	150792	7603	194351
	819	96	8.99	3.25	11995	306621	0.180	1703450	3.96	7074	180828	9292	237526
	820	97	8.62	3.32	9719	248441	0.160	1552756	3.78	5641	144197	7548	192945
	821	84	5.82	2.23	6986	178579	0.120	1488158	2.57	4116	105215	5449	139289
	822	87	7.03	2.60	7947	203144	0.130	1562646	3.02	4690	119888	6197	158410
	823	81	5.79	2.04	13977	357285	0.200	1786425	2.64	8991	229831	11164	285378
	824	95	9.50	3.50	7912	202249	0.140	1444636	3.94	4977	127224	6358	162526
	825	80	5.65	2.03	9292	237526	0.140	1696614	2.32	6074	155266	7576	193661
	826	84	6.05	2.37	8243	210711	0.160	1316944	2.58	5662	144734	6898	176329
	827	80	4.99	1.83	5735	146600	0.140	1047143	2.03	3573	91334	4598	117536
	828	93	8.53	3.04	7212	184356	0.160	1152225	3.71	4995	127684	5993	153195
	829	79	4.79	1.76	6318	161503	0.120	1345858	2.24	4691	119913	5407	138216
	830	81	5.47	2.13	9603	245475	0.240	1022813	2.40	6011	153655	7700	196830
	831	83	6.15	2.32	11104	283845	0.210	1351643	2.67	5868	150000	8302	212219
	832	85	6.00	2.12	11940	305215	0.220	1387341	2.76	7455	190567	9403	240363

Table A.3.46. Mean mercury content of yellow perch from LMS83-8, a sediment-bottomed limnocorral with added (low) moss and lake bottom sediment, 1983. (For sample sizes, see Table A.3.45).

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 30- July 10	Time 0	73	3.60	1.43			0.096						
July 20,21	801-806	71	3.37	1.35	352	9007	0.068	135313	1.57	587	14997	480	12261
Aug 10	807-812	80	5.23	1.96	5124	130990	0.123	1045676	2.44	3511	89741	4235	108257
Aug 29	813-832	88	7.05	2.63	9139	233611	0.162	1445683	3.06	5626	143824	7247	185245

Table A.3.47. "Time zero" data on yellow perch, 1984.

		Whole fish		Muscle tissue		Carcass
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	Total Hg (μg/g)	Wt (g)
June 25	1	61	1.74	0.62	0.103	0.87
	2	60	1.81	0.71	0.047	0.85
	3	63	2.26	0.93	0.086	1.01
	4	55	1.40	0.54	0.049	0.64
	5	61	2.10	0.88	0.055	0.89
	6	57	1.60	0.58	0.065	0.73
	7	56	1.37	0.48	0.075	0.64
	8	58	1.92	0.76	0.094	0.81
	9	59	1.49	0.52	0.107	0.72
	10	60	1.82	0.76	0.055	0.76
	11	61	2.08	0.82	0.049	0.94
	12	58	1.70	0.63	0.056	0.81
	13	54	1.46	0.52	0.073	0.73
	14	60	1.81	0.71	0.053	0.83
	15	58	1.46	0.48	0.066	0.70
	16	57	1.56	0.55	0.077	0.74
	17	60	1.98	0.66	0.047	0.98
	18	60	2.05	0.79	0.111	0.89
	19	60	1.85	0.67	0.059	0.87
	20	59	1.80	0.59	0.069	0.89
	21	54	1.15	0.33	0.095	0.62
	22	57	1.60	0.57	0.068	0.67
	23	59	1.71	0.65	0.093	0.84
	24	67	3.03	1.15	0.093	1.35
	25	60	1.68			
	26	64	1.87			
	27	57	1.60			
	28	59	1.87			
	29	58	1.74			
	30	58	1.43			
	31	60	1.90			
	32	61	1.86			
	33	58	1.52			
	34	60	1.80			
	35	55	1.33			
	36	57	1.54			
	37	64	2.19			
	38	62	1.74			
	39	58	1.73			
	40	57	1.48			
June 25	41	57	1.53			
	42	59	1.58			
	43	61	1.80			
	44	61	2.02			
	45	65	2.35			
	46	59	1.74			
	47	62	2.02			
	48	55	1.27			
	49	58	1.72			
	50	58	1.59			
	51	55	1.20			
	52	61	1.80			
	53	57	1.46			
	54	62	1.87			
	55	60	1.78			
	56	64	2.38			
	57	61	1.95			
	58	59	1.63			
	59	59	1.77			
	60	60	1.63			
	61	54	1.31			
	62	58	1.46			
	63	57	1.53			
	64	47	0.82			
	65	59	1.56			
	66	59	1.79			
	67	61	2.07			
	68	57	1.59			
	69	55	1.36			
	70	58	1.67			
	71	58	1.53			
	72	60	1.79			
	73	61	1.99			
	74	52	1.16			
	75	61	1.82			
	76	63	2.17			
	77	60	1.88			
	78	59	1.86			

Table A.3.48. Mercury content of yellow perch from LMN84-1, a sediment-bottomed limnocorral with added (low) moss, 1984. No radioisotope addition was made to this limnocorral.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	101	64	2.12	0.78			0.057		0.96				
	102	60	1.93	0.69			0.067		1.16				
	103	63	2.10	0.79			0.073		1.07				
	104	58	1.80	0.60			0.091		0.89				
	105	62	2.23	0.74			0.058		1.11				
	106	61	1.92	0.60			0.057		1.05				
July 26	107	64	2.15	0.73			0.102		1.06				
	108	63	2.15	0.79			0.097		0.99				
	109	62	2.15	0.77			0.095		0.98				
	110	64	2.29	0.88			0.093		1.03				
	111	63	2.07	0.71			0.082		0.92				
	112	66	2.67	0.97			0.092		1.27				
	113	63	2.37	0.80			0.087		1.15				
	114	61	1.81	0.57			0.078		0.95				
	115	67	2.61	0.89			0.111		1.28				
	116	69	3.15	1.08			0.094		1.58				
Aug 2	117	67	2.79	1.05			0.079		1.43				
	118	68	3.05	1.12			0.067		1.51				
	119	72	3.56	1.31			0.111		1.82				
	120	74	3.86	1.41			0.093		1.89				
	121	61	2.04	0.81			0.086		0.92				
	122	69	2.73	1.10			0.096		1.34				
	123	67	2.87	1.14			0.109		1.35				
	124	59	1.87	0.72			0.089		0.95				
	125	62	2.21	0.79			0.100		1.09				
	126	63	2.01	0.81			0.113		0.94				
Aug 9	127	68	2.74	1.00			0.088		1.31				
	128	70	3.03	1.15			0.103		1.42				
	129	68	2.63	1.00			0.106		1.26				
	130	67	2.42	0.90			0.068		1.18				
	131	71	2.84	1.11			0.081		1.38				
	132	67	2.66	1.09			0.093		1.25				
	133	75	3.69	1.41			0.077		1.89				
	134	68	2.75	1.13			0.108		1.27				
	135	65	2.39	0.93			0.097		1.12				
	136	65	2.50	0.90			0.093		1.22				
Aug 16	137	71	3.33	1.31			0.082		1.56				
	138	65	2.34	0.91			0.131		1.06				
	139	64	2.29	0.87			0.095		1.06				
	140	75	3.77	1.43			0.103		1.89				
	141	71	3.07	1.23			0.121		1.51				
	142	68	2.67	1.03			0.117		1.23				
	143	82	4.45	1.61			0.076		2.27				
	144	66	2.47	0.97			0.095		1.21				
	145	67	2.60	1.02			0.133		1.20				
	146	68	2.76	1.05			0.145		1.24				
Aug 23	147	73	4.02	1.46			0.102		2.00				
	148	68	2.60	0.97			0.079		1.22				
	149	69	2.75	1.05			0.089		1.35				
	150	69	2.82	0.97			0.111		1.51				
	151	73	3.54	1.36			0.072		1.82				
	152	70	3.00	1.05			0.083		1.47				
	153	69	2.86	1.04			0.118		1.52				
	154	71	3.20	1.14			0.100		1.68				
	155	72	3.42	1.29			0.082		1.61				
	156	74	3.65	1.35			0.112		1.86				
Aug 29	157	62	2.28	0.87			0.141		1.07				
	158	70	3.25	1.25			0.104		1.52				
	159	69	2.82	1.03			0.117		1.48				
	160	72	3.07	1.11			0.114		1.62				
	161	67	2.68	0.99			0.142		1.31				
	162	76	4.07	1.56			0.122		2.02				
	163	73	3.55	1.31			0.141		1.65				
	164	72	3.14	1.09			0.160		1.68				
	165	69	3.00	1.14			0.168		1.43				
	166	69	2.71	1.01			0.148		1.37				
Sept 30	167	68	3.00	1.07			0.148		1.37				
	168	71	3.34	1.27			0.116		1.50				
	169	76	4.11	1.48			0.095		1.80				
	170	69	3.18	1.11			0.141		1.49				
	171	76	4.04	1.45			0.090		1.94				
	172	72	3.61	1.33			0.128		1.59				
	173	73	3.44	1.19			0.118		1.59				
	174	70	3.29	1.21			0.122		1.62				
	175	73	3.36	1.17			0.099		1.68				
	176	71	3.41	1.21			0.144		1.60				

Table A.3.49. Mean mercury content of yellow perch from LMN84-1, a sediment-bottomed limnocorral with added (low) moss, 1984. No radioisotope addition was made to this limnocorral. (For sample sizes, see Table A.3.48).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	101-106	61	2.02	0.70			0.067		1.04				
July 26	107-116	64	2.34	0.82			0.093		1.12				
Aug 2	117-126	66	2.70	1.03			0.094		1.32				
Aug 9	127-136	68	2.77	1.06			0.091		1.33				
Aug 16	137-146	70	2.98	1.14			0.110		1.42				
Aug 23	147-156	71	3.19	1.17			0.095		1.60				
Aug 29	157-166	70	3.06	1.14			0.136		1.52				
Sept 30	167-176	72	3.48	1.25			0.120		1.62				

Table A.3.50. Mercury content of yellow perch from CN84-2, a sediment-bottomed control limnocorral, 1984. No radioisotope addition was made to this limnocorral.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	201	59	2.03	0.75			0.040		0.98				
	202	57	1.80	0.65			0.083		0.83				
	203	59	2.01	0.82			0.057		0.98				
	204	60	1.79	0.66			0.077		0.92				
	205	61	2.13	0.79			0.060		1.08				
	206	56	1.54	0.54			0.062		0.78				
July 26	207	65	2.41	0.79			0.085		1.11				
	208	64	2.46	0.84			0.073		1.19				
	209	71	3.51	1.36			0.065		1.60				
	210	59	1.82	0.61			0.072		0.88				
	211	62	1.85	0.65			0.054		0.84				
	212	58	1.57	0.55			0.056		0.68				
	213	61	1.97	0.58			0.061		0.99				
	214	59	1.50	0.49			0.061		0.75				
	215	59	1.60	0.59			0.073		0.81				
	216	66	2.46	0.94			0.063		1.20				
Aug 2	217	68	2.74	1.05			0.082		1.28				
	218	76	4.24	1.56			0.077		2.18				
	219	65	2.36	0.93			0.070		1.09				
	220	67	2.54	1.01			0.046		1.25				
	221	72	3.36	1.37			0.053		1.67				
	222	58	1.73	0.62			0.059		0.82				
	223	54	1.28	0.38			0.064		0.67				
	224	60	1.50	0.48			0.096		0.78				
	225	64	2.39	0.91			0.079		1.21				
	226	61	1.95	0.75			0.081		0.92				
Aug 9	227	67	2.98	1.04			0.080		1.41				
	228	65	2.27	0.80			0.046		1.05				
	229	64	2.07	0.72			0.064		1.02				
	230	58	1.70	0.59			0.068		0.81				
	231	71	3.13	1.19			0.063		1.44				
	232	65	2.39	0.85			0.053		1.22				
	233	67	2.75	1.04			0.054		1.32				
	234	69	2.59	0.95			0.074		1.22				
	235	58	1.62	0.50			0.057		0.84				
	236	58	1.87	0.77			0.041		0.90				
Aug 16	237	65	2.74	1.09			0.052		1.29				
	238	60	1.92	0.68			0.044		0.86				
	239	65	2.00	0.54			0.065		1.03				
	240	60	1.95	0.75			0.056		0.83				
	241	63	2.24	0.81			0.044		1.06				
	242	58	1.90	0.68			0.052		0.85				
	243	65	2.44	0.94			0.044		1.13				
	244	61	2.06	0.71			0.063		0.99				
	245	68	2.76	1.12			0.046		1.33				
	246	49	1.11	0.43			0.052		0.44				
Aug 23	247	75	3.77	1.57			0.047		1.72				
	248	61	1.91	0.63			0.049		1.03				
	249	67	2.47	0.90			0.055		1.30				
	250	73	3.53	1.31			0.050		1.60				
	251	68	2.57	0.94			0.061		1.36				
	252	63	2.23	0.79			0.048		1.09				
	253	53	1.31	0.53			0.047		0.55				
	254	68	2.74	0.99			0.068		1.37				
	255	67	2.41	0.89			0.059		1.21				
	256	54	1.48	0.58			0.061		0.65				
Aug 29	257	75	3.77	1.52			0.082		1.81				
Sept 30	258	60	1.98	0.75			0.055		0.91				
	259	60	1.99	0.69			0.063		0.95				
	260	70	3.08	1.18			0.057		1.31				
	261	59	1.88	0.71			0.050		0.82				
	262	62	2.13	0.74			0.052		0.95				
	263	61	2.12	0.78			0.086		1.07				
	264	59	1.96	0.71			0.077		0.85				
	265	59	1.90	0.67			0.088		0.85				
	266	79	4.78	1.91			0.066		2.22				
	267	88	6.65	2.60			0.093		2.99				

Table A.3.51. Mean mercury content of yellow perch from CN84-2, a sediment-bottomed control limnocorral, 1984. No radioisotope addition was made to this limnocorral. (For sample sizes, see Table A.3.50).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	201-206	59	1.88	0.70			0.063		0.93				
July 26	207-216	62	2.12	0.74			0.066		1.01				
Aug 2	217-226	65	2.41	0.91			0.071		1.19				
Aug 9	227-236	64	2.34	0.85			0.060		1.12				
Aug 16	237-246	61	2.11	0.78			0.052		0.98				
Aug 23	247-256	65	2.44	0.91			0.055		1.19				
Aug 29	257	75	3.77	1.52			0.082		1.81				
Sept 30	258-267	66	2.85	1.07			0.069		1.29				

Table A.3.52. Mercury content of yellow perch from SP84-3, a sediment-bottomed limnocorral with added black spruce boughs, 1984.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	301	68	2.99	1.15	232	5930	0.099	59899	1.49	540	13804	406	10378
	302	61	2.11	0.74	360	9202	0.088	104568	1.13	660	16871	541	13829
	303	55	1.74	0.63	398	10174	0.059	172441	0.90	805	20578	637	16283
	304	57	1.71	0.55	456	11656	0.065	179323	0.94	1147	29320	892	22802
	305	61	2.24	0.83	298	7618	0.088	86568	1.12	819	20936	597	15261
	306	58	1.76	0.49	504	12883	0.106	121538	0.89	1006	25716	828	21166
July 26	307	65	2.64	0.90	2532	64724	0.094	688553	1.40	2342	59867	2416	61759
	308	60	1.81	0.62	2171	55496	0.087	637885	0.96	2343	59893	2276	58180
	309	69	3.01	1.06	2277	58206	0.072	808417	1.53	2333	59637	2310	59049
	310	63	2.16	0.77	2816	71984	0.076	947158	1.01	2770	70808	2790	71319
	311	63	2.33	0.84	2422	61912	0.089	695640	1.16	2308	58998	2356	60225
	312	61	1.95	0.64	3153	80598	0.120	671650	0.96	2629	67203	2839	72572
	313	61	2.02	0.74	3731	95373	0.098	973194	0.97	3425	87551	3557	90925
	314	66	2.48	0.87	1845	47163	0.055	857509	1.30	1863	47623	1856	47444
	315	68	2.76	0.88	2265	57899	0.081	714802	1.46	2375	60711	2334	59663
	316	66	2.61	0.97	2666	68149	0.087	783322	1.23	2450	62628	2545	65056
Aug 2	317	70	2.91	1.13	2879	73594	0.101	728653	1.41	2203	56314	2504	64008
	318	61	1.91	0.73	5668	144888	0.107	1354093	0.88	3731	95373	4609	117817
	319	69	2.71	1.01	3392	86708	0.104	833731	1.33	2810	71830	3061	78246
	320	67	2.61	0.94	3023	77275	0.094	822074	1.27	1964	50204	2414	61708
	321	64	2.18	0.89	3545	90619	0.111	816387	1.05	2982	76227	3240	82822
	322	72	3.37	1.35	1963	50179	0.067	748940	1.63	1570	40133	1748	44683
	323	65	2.60	0.98	4975	127173	0.089	1428910	1.33	3369	86120	4050	103528
	324	64	2.15	0.85	3408	87117	0.069	1262565	1.03	2584	66053	2957	75588
	325	61	2.09	0.86	6011	153655	0.106	1449575	0.96	4136	105726	5022	128374
	326	65	2.50	0.96	5206	133078	0.111	1198901	1.24	3860	98671	4447	113676
Aug 9	327	75	3.44	1.14	4268	109100	0.102	1069608	1.78	2888	73824	3427	87602
	328	78	4.12	1.57	2199	56212	0.043	1307256	2.02	1704	43558	1920	49080
	329	71	3.11	1.12	3877	99105	0.073	1357603	1.59	2574	65798	3113	79576
	330	70	2.96	1.25	4966	126943	0.075	1692573	1.30	3345	85506	4140	105828
	331	61	2.00	0.73	7501	191743	0.093	2061753	0.87	4726	120808	5992	153170
	332	67	2.95	1.07	5012	128119	0.081	1581716	1.36	3447	88113	4136	105726
	333	65	2.45	0.97	5488	140286	0.082	1710805	1.02	3412	87219	4424	113088
	334	69	3.17	1.12	8304	212270	0.115	1845826	1.62	5683	145271	6754	172648
	335	66	2.66	1.06	4377	111887	0.108	1035991	1.20	2954	75511	3621	92561
	336	70	2.87	1.13	5690	145450	0.098	1484184	1.43	4005	102377	4749	121396
Aug 16	337	70	2.88	1.18	7698	196779	0.117	1681872	1.46	5813	148594	6656	170143
	338	64	2.39	0.91	7475	191079	0.108	1769250	1.03	5013	128144	6168	157669
	339	72	3.14	1.24	6371	162858	0.119	1368555	1.59	3859	98645	4960	126789
	340	73	3.82	1.47	11100	283742	0.134	2117478	1.84	6831	174617	8727	223083
	341	76	4.16	1.64	4314	110276	0.087	1267540	2.07	3007	76866	3585	91641
	342	70	3.10	1.26	6069	155138	0.088	1762932	1.50	3707	94760	4785	122316
	343	63	2.35	0.92	12854	328579	0.175	1877594	1.11	8031	205291	10217	261171
	344	71	3.39	1.37	6355	162449	0.088	1846011	1.50	4189	107081	5223	133512
	345	72	3.42	1.43	5092	130164	0.105	1239657	1.56	3284	83947	4149	106058
	346	67	2.75	1.16	8787	224617	0.134	1676246	1.31	4546	116207	6538	167127
Aug 23	347	72	3.14	1.29	12036	307669	0.145	2121855	1.55	8061	206058	9867	252224
	348	77	4.12	1.55	8675	221754	0.118	1879271	1.98	5734	146575	7025	179576
	349	72	3.53	1.40	6538	167127	0.102	1638500	1.67	3825	97776	5062	129397
	350	73	3.37	1.41	12047	307950	0.158	1949051	1.41	7667	195987	9857	251968
	351	73	3.50	1.40	7699	196805	0.105	1874333	1.69	5016	128221	6232	159305
	352	74	3.55	1.38	9780	250000	0.127	1968504	1.71	6141	156979	7766	198517
	353	72	3.09	1.18	11120	284254	0.136	2090103	1.51	7282	186145	8966	229192
	354	77	3.90	1.58	7292	186401	0.104	1792317	1.90	4946	126431	6011	153655
	355	70	2.94	1.19	9170	234407	0.116	2020750	1.38	5880	150307	7403	189238
	356	73	3.88	1.49	8638	220808	0.119	1855529	1.81	5582	142689	6962	177965
Aug 29	357	69	3.37	1.27	6932	177198	0.118	1501678	1.54	4132	105624	5397	137960
	358	77	3.83	1.36	16557	423236	0.189	2239344	1.81	10313	263625	12992	332106
	359	70	3.05	1.05	10618	271421	0.138	1966819	1.61	5950	152096	7793	199208
	360	74	3.45	1.28	15332	391922	0.180	2177344	1.68	10111	258461	12369	316181
	361	75	3.75	1.39	17410	445041	0.206	2160393	1.81	10279	262756	13377	341948
	362	66	2.69	1.06	13043	333410	0.172	1938430	1.21	7438	190133	10055	257030
	363	76	[illegible].76	1.49	9597	245322	0.119	2061529	1.70	6033	154218	7698	196779
	364	79	4.31	1.55	8364	213804	0.127	1683496	2.15	5513	140925	6707	171447
	365	74	3.86	1.46	17767	454167	0.243	1869000	1.89	11252	287628	14091	360199
	366	80	4.27	1.65	13393	342357	0.173	1978942	2.00	8506	217434	10715	273901
Sept 30	367	78	4.72	1.73	8712	222699	0.109	2043110	2.25	4558	116513	6364	162679
	368	77	4.47	1.56	25792	659305	0.256	2575410	2.00	13564	346728	18921	483666
	369	79	4.48	1.55	17566	449029	0.200	2245145	2.29	9432	241104	12715	325026
	370	78	4.75	1.77	13861	354320	0.169	2096568	2.21	8394	214571	10825	276713
	371	80	5.07	1.77	11029	281927	0.142	1985401	2.55	6486	165798	8347	213369
	372	80	4.77	1.70	18302	467843	0.219	2136269	2.24	10296	263190	13750	351483
	373	80	4.64	1.82	15213	388880	0.179	2172514	2.14	8408	214928	11536	294888
	374	79	4.63	1.65	20341	519964	0.232	2241224	2.15	10926	279294	15014	383793
	375	81	5.10	1.84	15110	386247	0.188	2054505	2.45	8480	216769	11324	289468
	376	85	5.31	2.08	17854	456391	0.227	2010533	2.58	9727	248645	13355	341385

Table A.3.53. Mean mercury content of yellow perch from SP84-3, a sediment-bottomed limnocorral with added black spruce boughs, 1984. (For sample sizes, see Table A.3.52).

		Whole fish		Muscle tissue					Carcass			muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round weight (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	301-306	60	2.09	0.73	375	9577	0.084	120723	1.08	830	21204	650	16620
July 26	307-316	64	2.38	0.83	2588	66150	0.086	777813	1.20	2484	63492	2528	64619
Aug 2	317-326	66	2.50	0.97	4007	102429	0.096	1064383	1.21	2921	74665	3405	87045
Aug 9	327-336	69	2.97	1.12	5168	132112	0.087	1514732	1.42	3474	88799	4228	108068
Aug 16	337-346	70	3.14	1.26	7612	194568	0.116	1660714	1.50	4828	123415	6101	155951
Aug 23	347-356	73	3.50	1.39	9300	237718	0.123	1919021	1.66	6013	153717	7515	192104
Aug 29	357-366	74	3.63	1.36	12901	329788	0.167	1957698	1.74	7953	203290	10119	258676
Sept 30	367-376	80	4.79	1.75	16378	418661	0.192	2156068	2.29	9027	230754	12215	312247

Table A.3.54. Mercury content of yellow perch from SN84-4, a sediment-bottomed limnocorral with added prairie sod, 1984.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	401	61	2.15	0.82	416	10634	0.054	196926	1.11	783	20015	627	16028
	402	63	2.26	0.84	369	9433	0.059	159881	1.14	735	18788	580	14826
	403	64	2.61	0.98	465	11887	0.045	264156	1.36	918	23466	728	18609
	404	58	1.78	0.61	399	10199	0.061	167197	0.83	713	18226	580	14826
	405	61	2.04	0.68	519	13267	0.073	181740	1.12	871	22265	738	18865
	406	66	2.80	1.05	301	7694	0.060	128233	1.40	721	18430	541	13829
July 26	407	64	2.54	0.91	1684	43047	0.054	797167	1.11	1534	39213	1602	40951
	408	67	2.79	0.97	1751	44760	0.060	746000	1.35	1576	40286	1649	42152
	409	75	4.62	1.77	1635	41794	0.058	720586	2.27	1434	36656	1522	38906
	410	69	3.23	1.07	1661	42459	0.063	673952	1.57	1647	42101	1653	42255
	411	62	2.33	0.89	2547	65107	0.058	1122534	1.16	2030	51892	2254	57618
	412	72	3.74	1.43	1531	39136	0.057	686596	1.68	1545	39494	1539	39340
	413	71	3.52	1.42	1471	37602	0.042	895286	1.36	1245	31825	1360	34765
	414	73	4.12	1.61	1662	42485	0.049	867041	1.74	1433	36631	1543	39443
	415	72	3.53	1.31	1619	41385	0.052	795865	1.68	1441	36835	1519	38829
	416	64	2.29	0.81	1522	38906	0.061	637803	1.01	1267	32388	1380	35276
Aug 2	417	75	4.19	1.70	3034	77556	0.050	1551120	2.01	2250	57515	2609	66692
	418	83	5.13	2.14	2220	56748	0.038	1493368	2.31	1629	41641	1913	48901
	419	74	4.37	1.74	1957	50026	0.041	1220146	2.01	1657	42357	1796	45910
	420	71	3.40	1.35	2221	56774	0.052	1091808	1.54	1819	46498	2007	51304
	421	78	4.76	1.95	1908	48773	0.042	1161262	2.11	1539	39340	1716	43865
	422	80	4.96	2.03	2495	63778	0.056	1138893	2.33	1757	44913	2101	53707
	423	77	4.76	2.12	2034	51994	0.039	1333179	2.01	1501	38369	1775	45373
	424	72	3.97	1.58	3160	80777	0.049	1648510	1.72	2290	58538	2707	69197
	425	82	5.34	2.19	3030	77454	0.061	1269738	2.45	2070	52914	2523	64494
	426	83	5.63	2.47	2242	57311	0.040	1432775	2.39	1679	42919	1965	50230
Aug 9	427	86	6.17	2.58	5463	139647	0.093	1501581	2.99	3917	100128	4633	118430
	428	88	7.65	2.94	4293	109739	0.065	1688292	3.55	3240	82822	3717	95015
	429	88	6.86	2.97	4377	111887	0.079	1416291	3.06	3244	82924	3802	97188
	430	82	6.33	2.58	3453	88267	0.056	1576196	2.65	2817	72009	3131	80036
	431	74	3.89	1.51	3255	83206	0.059	1410271	1.74	2328	59509	2759	70527
	432	79	5.28	2.04	4426	113139	0.062	1824823	2.42	3105	79371	3709	94811
	433	80	4.97	2.05	4555	116437	0.064	1819328	2.16	2992	76483	3753	95936
	434	84	5.96	2.56	3449	88165	0.061	1445328	2.51	2573	65772	3015	77071
	435	82	6.22	2.43	4149	106058	0.070	1515114	2.71	2978	76125	3532	90286
	436	77	5.28	2.22	4032	103067	0.062	1662371	2.15	3129	79985	3588	91718
Aug 16	437	80	5.19	2.24	6170	157720	0.083	1900241	2.16	4036	103170	5122	130930
	438	85	6.05	2.74	5621	143686	0.066	2177061	2.38	3720	95092	4737	121089
	439	83	5.65	2.36	5172	132209	0.069	1916072	2.64	3075	78604	4065	103911
	440	85	7.34	2.75	5443	139136	0.081	1717728	3.55	3695	94453	4458	113957
	441	85	6.25	2.60	4664	119223	0.079	1509152	2.99	3093	79064	3824	97751
	442	79	4.73	2.01	5605	143277	0.089	1609854	2.05	3695	94453	4641	118635
	443	84	5.55	2.47	5090	130112	0.084	1548952	2.48	3044	77812	4065	103911
	444	91	7.23	3.13	4320	110429	0.081	1363321	3.52	2873	73441	3554	90849
	445	85	6.25	2.43	5181	132439	0.079	1676443	2.92	3101	79269	4045	103400
	446	89	7.33	3.18	5331	136273	0.089	1531157	3.32	3656	93456	4475	114392
Aug 23	447	96	8.28	3.47	5050	129090	0.088	1466932	4.05	2971	75946	3930	100460
	448	86	6.01	2.44	7929	202684	0.101	2006772	2.80	4822	123262	6269	160251
	449	81	5.36	2.24	6029	154116	0.094	1639532	2.27	3609	92255	4811	122981
	450	93	7.41	3.06	5556	142025	0.091	1560714	3.21	3204	81902	4352	111247
	451	85	6.40	2.45	5779	147725	0.105	1406905	2.98	3732	95399	4656	119018
	452	84	5.50	2.18	9296	237628	0.137	1734511	2.68	5583	142715	7249	185302
	453	86	6.79	2.97	6128	156646	0.104	1506212	2.75	3706	94734	4964	126892
	454	87	6.29	2.62	6281	160557	0.116	1384112	2.95	3888	99387	5014	128170
	455	84	5.59	2.31	7086	181135	0.133	1361917	2.65	4428	113190	5666	144836
	456	93	7.61	3.22	6025	154013	0.106	1452953	3.35	3738	95552	4859	124208
Aug 29	457	89	6.79	2.68	6412	163906	0.108	1517648	3.06	3944	100818	5096	130266
	458	92	7.17	3.00	6228	159202	0.094	1693638	3.45	3543	90567	4792	122495
	459	94	8.85	3.30	4579	117050	0.081	1445062	4.16	2650	67740	3503	89545
Sept 30	460	94	8.18	3.26	5776	147648	0.092	1604870	3.71	3484	89059	4556	116462
	461	91	7.57	2.82	7011	179218	0.093	1927075	3.13	4133	105649	5497	140516
	462	94	8.27	3.28	5699	145680	0.076	1916842	3.93	3258	83282	4368	111656
	463	92	7.59	2.99	6498	166104	0.099	1677818	3.28	3486	89110	4922	125818
	464	88	6.94	2.70	7830	200153	0.099	2021747	3.16	4104	104908	5821	148799
	465	93	8.18	3.19	6861	175383	0.098	1789622	3.36	3896	99591	5340	136503
	466	84	6.45	2.61	9296	237628	0.126	1885937	2.56	4918	125716	7128	182209
	467	87	7.26	2.97	6590	168456	0.119	1415597	3.37	3721	95118	5065	129473
	468	79	5.10	1.95	5572	142434	0.094	1515255	2.19	3404	87014	4425	113113
	469	84	5.52	2.23	7524	192331	0.104	1849337	2.55	3998	102198	5643	144248

Table A.3.55. Mean mercury content of yellow perch from SD84-4, a sediment-bottomed limnocorral with added prairie sod, 1984. (For sample sizes, see Table A.3.54).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	401-406	62	2.27	0.83	412	10519	0.059	183022	1.16	790	20198	632	16164
July 26	407-416	69	3.27	1.22	1708	43668	0.055	794283	1.49	1515	38732	1602	40954
Aug 2	417-426	78	4.65	1.93	2430	62119	0.047	1334080	2.09	1819	46500	2111	53967
Aug 9	427-436	82	5.86	2.39	4145	105961	0.067	1585960	2.59	3032	77513	3564	91102
Aug 16	437-446	85	6.16	2.59	5260	134450	0.080	1694998	2.80	3399	86881	4299	109883
Aug 23	447-456	88	6.52	2.70	6516	166562	0.108	1552056	2.97	3968	101434	5177	132337
Aug 29	457-459	92	7.60	2.99	5740	146719	0.094	1552116	3.56	3379	86375	4464	114102
Sept 30	460-469	89	7.11	2.80	6866	175504	0.100	1760410	3.12	3840	98165	5277	134880

Table A.3.56. Mercury content of yellow perch from LM84-5, a sediment-bottomed limnocorral with added (low) moss, 1984.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	501	62	2.04	0.69	257	6570	0.095	69158	1.04	553	14136	435	11120
	502	67	2.85	1.05	211	5394	0.064	84281	1.49	448	11452	350	8947
	503	60	1.68	0.60	445	11375	0.053	214623	0.90	656	16769	572	14622
	504	60	1.80	0.60	419	10711	0.055	194745	0.94	790	20194	645	16488
	505	54	1.27	0.38	453	11580	0.062	186774	0.69	998	25511	804	20552
	506	61	1.67	0.52	405	10353	0.068	152250	0.84	702	17945	588	15031
July 26	507	68	2.80	0.97	2184	55828	0.107	521757	1.34	1741	44504	1927	49259
	508	61	2.06	0.71	1742	44530	0.080	556625	0.93	1670	42689	1701	43482
	509	62	2.06	0.64	2023	51713	0.116	445802	0.95	1646	42076	1798	45961
	510	61	2.04	0.67	2495	63778	0.106	601679	0.98	1924	49182	2156	55112
	511	62	2.13	0.81	2167	55394	0.083	667398	0.91	1846	47188	1997	51048
	512	68	2.64	0.92	1631	41692	0.100	416920	1.27	1225	31314	1396	35685
	513	63	2.37	0.84	1875	47929	0.110	435718	1.05	1544	39468	1691	43226
	514	65	2.29	0.76	1356	34663	0.037	398425	1.15	1063	27173	1180	30164
	515	62	2.12	0.77	2073	52991	0.103	514476	0.96	1804	46115	1924	49182
Aug 2	516	67	2.57	1.00	2500	63906	0.089	718045	1.16	1857	47469	2155	55087
	517	66	2.63	1.01	2218	56697	0.082	691427	1.23	1735	44351	1953	49923
	518	65	2.48	0.99	2473	63216	0.088	718364	1.18	1781	45527	2097	53604
	519	64	2.30	0.88	2286	58436	0.082	712634	1.10	1732	44274	1978	50562
	520	68	2.92	1.11	2527	64596	0.081	797481	1.46	1988	50818	2221	56774
	521	69	2.71	0.97	1426	36452	0.095	383705	1.39	1171	29934	1276	32618
	522	67	2.52	0.96	2699	68993	0.094	733968	1.18	1988	50818	2307	58972
	523	62	2.16	0.82	3084	78834	0.110	716673	0.96	2165	55343	2588	66155
	524	64	2.46	0.97	2904	74233	0.082	905280	0.99	2075	53042	2485	63522
	525	65	2.51	0.93	2723	69606	0.113	615982	1.17	1736	44376	2173	55547
Aug 9	526	68	2.72	1.08	3351	85660	0.091	941319	1.25	2101	53707	2680	68507
	527	71	3.21	1.27	2855	72981	0.078	935654	1.50	1602	40951	2176	55624
	528	66	2.54	1.05	2795	71447	0.095	752074	1.22	1971	50383	2352	60123
	529	72	3.19	1.15	2698	68967	0.101	682842	1.64	1711	43737	2118	54141
	530	63	2.32	0.93	2445	62500	0.088	710227	1.07	1605	41028	1996	51022
	531	60	2.09	0.83	2865	73236	0.079	927038	0.91	1849	47265	2334	59663
	532	72	3.39	1.29	2001	51150	0.080	639375	1.62	1394	35634	1663	42510
	533	67	2.81	1.12	3309	84586	0.097	872021	1.34	2037	52071	2616	66871
	534	63	2.25	0.89	3766	96268	0.103	934641	1.04	2204	56339	2924	74744
	535	65	2.41	0.87	3048	77914	0.096	811604	1.12	1842	47086	2369	60557
Aug 16	536	75	4.13	1.43	1803	46089	0.072	640125	2.09	1049	26815	1355	34637
	537	70	3.23	1.29	4581	117101	0.118	992381	1.45	2694	68865	3582	91564
	538	78	4.56	1.76	2999	76662	0.106	723226	2.25	1835	46907	2346	59969
	539	66	2.75	1.11	3194	81646	0.077	1060338	1.26	1961	50128	2538	64877
	540	68	3.11	1.26	3092	79039	0.088	898170	1.41	1994	50971	2512	64213
	541	70	3.55	1.36	4448	113701	0.124	916944	1.73	2641	67510	3436	87832
	542	76	3.89	1.56	2426	62014	0.073	849507	1.91	1798	45961	2080	53170
	543	70	3.32	1.28	4041	103298	0.091	1135143	1.63	2602	66513	3235	82694
	544	72	3.42	1.45	3463	88522	0.100	885220	1.64	2080	53170	2730	69785
	545	71	3.42	1.36	3490	89213	0.121	737298	1.66	2047	52326	2697	68942
Aug 23	546	74	3.49	1.42	3686	94223	0.125	753784	1.66	2425	61989	3006	76840
	547	67	2.78	1.05	4191	107132	0.115	931583	1.32	2602	66513	3306	84509
	548	73	3.78	1.44	4197	107285	0.124	865202	1.78	2241	57285	3116	79652
	549	76	4.09	1.48	3970	101483	0.130	780638	2.07	2402	61401	3056	78119
	550	72	3.34	1.35	4509	115261	0.114	1011061	1.54	2550	65184	3465	88574
	551	77	4.01	1.50	3768	96319	0.144	668882	1.93	2312	59100	2949	75383
	552	68	2.81	1.11	5452	139366	0.151	922954	1.34	3174	81135	4206	107515
	553	71	3.57	1.42	3933	100537	0.118	852008	1.69	2485	63522	3146	80419
	554	73	3.52	1.32	3696	94479	0.119	793941	1.69	2367	60506	2950	75409
	555	76	3.99	1.43	3712	94888	0.155	612181	1.87	2323	59381	2925	74770
Aug 29	556	77	4.37	1.51	4381	111989	0.115	973817	2.12	2409	61580	3229	82541
	557	74	3.47	1.37	5428	138753	0.135	1027800	1.72	2935	75026	4040	103272
	558	80	4.32	1.67	5025	128451	0.137	937599	2.03	2480	63395	3629	92766
	559	74	3.59	1.40	4846	123875	0.129	960271	1.76	2765	70680	3687	94248
	560	76	3.94	1.62	5184	132515	0.134	988918	1.82	2974	76022	4015	102633
	561	76	4.12	1.50	5752	147035	0.184	799103	2.07	3087	78911	4207	107541
	562	79	4.17	1.59	5407	138216	0.137	1008876	2.10	2820	72086	3935	100588
	563	72	3.15	1.17	5453	139392	0.133	1048060	1.60	2765	70680	3900	99693
	564	74	3.77	1.39	5431	138829	0.151	919397	1.74	3279	83819	4235	108257
Sept 30	565	77	4.17	1.54	5703	145782	0.149	978403	2.06	2922	74693	4112	105112
	566	73	3.75	1.45	6195	158359	0.165	959752	1.76	3110	79499	4504	115133
	567	76	4.26	1.50	6577	168124	0.187	899059	1.89	3592	91820	4913	125588
	568	75	4.58	1.67	5358	136963	0.153	895183	2.14	2942	75204	4001	102275

Table A.3.57. Mean mercury content of yellow perch from LM84-5, a sediment-bottomed limnocorral with added (low) moss, 1984. (For sample sizes, see Table A.3.56).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) Sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/ μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	501-506	61	1.89	0.64	365	9331	0.066	150305	0.98	691	17668	566	14460
July 26	507-515	64	2.28	0.79	1950	49835	0.099	506533	1.06	1607	41079	1752	44791
Aug 2	516-525	66	2.53	0.96	2484	63497	0.092	699356	1.18	1823	46595	2123	54276
Aug 9	526-535	67	2.69	1.05	2913	74471	0.091	820680	1.27	1832	46820	2323	59376
Aug 16	536-545	72	3.54	1.39	3354	85729	0.097	883835	1.70	2070	52917	2651	67768
Aug 23	546-555	73	3.54	1.35	4111	105097	0.130	819223	1.69	2488	63602	3213	82119
Aug 29	556-564	76	3.88	1.47	5212	133228	0.139	962649	1.88	2835	72467	3875	99060
Sept 30	565-568	75	4.19	1.54	5958	152307	0.164	933099	1.96	3142	80304	4383	112027

Table A.3.58. Mercury content of yellow perch from CHg84-6, a sediment-bottomed control limnocorral with both "cold" (ionic) mercury and "hot" ^{203}Hg, 1984.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	601	59	1.73	0.60	376	9611	0.072	133486	0.90	1070	27352	792	20245
	602	61	2.07	0.73	269	6876	0.055	125018	1.02	838	21421	601	15363
	603	58	1.93	0.70	313	8001	0.088	90920	1.04	795	20322	601	15363
	604	62	1.84	0.70	343	8768	0.060	146133	0.93	808	20654	608	15542
	605	51	1.03	0.30	559	14289	0.107	133542	0.49	970	24796	814	20808
	606	54	1.23	0.42	334	8538	0.111	76919	0.59	877	22418	651	16641
July 26	607	66	2.40	0.89	431	11017	0.060	183617	1.15	826	21115	654	16718
	608	63	2.06	0.76	333	8512	0.061	139541	0.89	705	18021	534	13650
	609	65	2.06	0.74	367	9381	0.105	89343	0.98	881	22520	660	16871
	610	63	2.19	0.77	482	12321	0.063	195571	0.94	991	25332	762	19479
	611	64	2.26	0.76	292	7464	0.052	143538	1.04	527	13471	428	10941
	612	64	2.38	0.91	336	8589	0.070	122700	1.05	824	21063	597	15261
	613	61	1.79	0.60	245	6263	0.061	102672	0.83	508	12986	398	10174
	614	62	1.81	0.64	286	7311	0.058	126052	0.89	798	20399	584	14928
	615	60	1.69	0.65	309	7899	0.052	151904	0.78	665	16999	503	12858
	616	65	2.15	0.78	209	5343	0.060	89050	0.99	552	14110	401	10251
Aug 2	617	65	2.12	0.74	217	5547	0.061	90934	1.05	504	12883	385	9842
	618	64	2.42	0.90	228	5828	0.057	102246	1.19	482	12321	373	9535
	619	61	1.92	0.72	186	4755	0.049	97041	0.93	562	14366	398	10174
	620	66	2.43	0.89	275	7030	0.072	97639	1.18	527	13471	419	10711
	621	62	1.93	0.74	185	4729	0.051	92725	0.90	619	15823	423	10813
	622	72	3.48	1.38	189	4831	0.069	70014	1.73	439	11222	328	8384
	623	68	2.91	1.18	185	4729	0.049	96510	1.39	505	12909	358	9151
	624	68	1.83	0.39	282	7209	0.148	48709	0.96	508	12986	443	11324
	625	63	2.28	0.86	244	6237	0.044	141750	1.07	540	13804	408	10429
	626	62	2.05	0.69	328	8384	0.062	135226	1.00	661	16897	525	13420
Aug 9	627	60	1.77	0.65	385	9842	0.079	124582	0.89	833	21293	644	16462
	628	65	2.38	0.91	331	8461	0.055	153836	1.15	679	17357	525	13420
	629	69	2.55	1.01	198	5061	0.046	110022	1.33	452	11554	342	8742
	630	71	3.11	1.24	296	7566	0.082	92268	1.38	569	14545	440	11247
	631	61	1.92	0.73	316	8078	0.052	155346	1.01	757	19351	572	14622
	632	62	2.06	0.80	265	6774	0.043	157535	0.97	497	12704	392	10020
	633	61	1.37	0.17	504	12883	0.119	108261	0.74	473	12091	479	12244
	634	69	2.90	1.11	101	2582	0.063	40984	1.38	287	7336	204	5215
	635	69	2.90	1.20	115	2940	0.058	50690	1.33	313	8001	219	5598
	636	64	2.23	0.82	261	6672	0.054	123556	1.08	447	11426	367	9381
Aug 16	637	65	2.37	0.86	519	13267	0.048	276396	1.21	729	18635	642	16411
	638	67	2.85	1.07	388	9918	0.081	122444	1.39	619	15823	519	13267
	639	65	2.51	0.93	525	13420	0.077	174286	1.21	596	15235	565	14443
	640	63	2.09	0.77	354	9049	0.069	131145	1.00	615	15721	501	12807
	641	63	2.37	0.89	371	9484	0.046	206174	1.10	803	20527	610	15593
	642	64	2.24	0.92	466	11912	0.042	283619	1.04	603	15414	539	13778
	643	71	3.32	1.29	861	22009	0.100	220090	1.54	710	18149	779	19913
	644	59	1.76	0.66	413	10557	0.054	195500	0.83	533	13625	480	12270
	645	72	3.61	1.39	341	8717	0.057	152930	1.73	496	12679	427	10915
	646	59	1.76	0.69	577	14749	0.060	245817	0.80	839	21447	718	18354
Aug 23	647	62	2.14	0.69	585	14954	0.071	210620	1.11	581	14852	583	14903
	648	67	2.57	0.95	729	18635	0.091	204780	1.25	765	19555	749	19146
	649	70	3.36	1.26	357	9126	0.057	160105	1.65	457	11682	414	10583
	650	67	2.46	0.82	624	15951	0.064	249234	1.18	598	15286	609	15567
	651	70	3.08	1.16	563	14392	0.066	218061	1.42	675	17255	625	15976
	652	68	2.70	1.00	497	12704	0.062	204903	1.30	641	16385	578	14775
	653	76	4.02	1.63	399	10199	0.049	208143	1.92	440	11247	421	10762
	654	64	2.24	0.76	674	17229	0.095	181358	1.06	654	16718	662	16922
	655	67	2.67	0.95	512	13088	0.057	229614	1.33	540	13804	528	13497
	656	68	3.11	1.02	1117	28553	0.105	271933	1.36	790	20194	930	23773

Table A.3.58. Cont'd.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Aug 29	657	69	2.69	0.98	525	13420	0.082	163659	1.35	704	17996	629	16079
	658	68	2.45	0.87	390	9969	0.062	160790	1.27	502	12832	456	11656
	659	57	2.32	0.90	839	21447	0.077	278532	1.11	815	20833	826	21115
Sept 30	660	75	4.00	1.52	1254	32055	0.087	368448	1.92	965	24668	1093	27940
	661	80	4.76	1.70	751	19197	0.070	274243	2.37	575	14698	649	16590
	662	81	4.86	1.73	1273	32541	0.082	396841	2.08	989	25281	1118	28579
	663	71	3.31	1.26	969	24770	0.065	381077	1.43	845	21600	903	23083
	664	77	4.37	1.58	1749	44709	0.148	302088	2.07	1194	30521	1434	36656
	665	88	6.47	2.36	1394	35634	0.095	375095	2.81	958	24489	1157	29576
	666	90	7.10	2.64	833	21293	0.146	145842	3.35	578	14775	690	17638
	667	87	6.13	2.23	672	17178	0.083	206964	2.90	528	13497	591	15107
	668	75	3.99	1.37	1509	38574	0.074	521270	1.94	1111	28400	1276	32618
	669	73	3.64	1.03	1378	35225	0.089	395787	1.81	992	25358	1132	28937

Table A.3.59. Mean mercury content of yellow perch from CHg84-6, a sediment-bottomed control limnocorral with both "cold" (ionic) mercury and "hot" ^{203}Hg, 1984. (For sample sizes, see Table A.3.58).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	601-606	58	1.64	0.58	366	9347	0.082	117670	0.83	893	22827	678	17327
July 26	607-616	63	2.08	0.75	329	8410	0.064	134399	0.95	728	18602	552	14113
Aug 2	617-626	65	2.34	0.85	232	5928	0.066	97279	1.14	535	13668	406	10378
Aug 9	627-636	65	2.32	0.86	277	7086	0.065	111708	1.13	531	13566	418	10695
Aug 16	637-646	65	2.49	0.95	482	12308	0.063	200840	1.19	654	16726	578	14775
Aug 23	647-656	68	2.84	1.02	606	15483	0.072	213875	1.36	614	15698	610	15590
Aug 29	657-659	65	2.49	0.92	585	14945	0.074	200994	1.24	674	17220	637	16283
Sept 30	660-669	80	4.86	1.74	1178	30118	0.094	336766	2.27	874	22329	1004	25672

Table A.3.60. Mercury content of yellow perch from C84-7, a sediment-bottomed control limnocorral, 1984.

Date(s) sampled	Fish no.	Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
		Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
July 12	701	55	1.45	0.53	304	7771	0.073	106452	0.73	595	15210	473	12091
	702	56	1.59	0.44	299	7643	0.077	99260	0.95	647	16539	537	13727
	703	63	2.36	0.88	202	5164	0.091	56747	1.28	693	17715	493	12602
	704	61	2.22	0.84	212	5419	0.078	69474	1.10	482	12321	365	9330
	705	58	1.61	0.54	234	5982	0.094	63638	0.82	566	14468	434	11094
	706	61	2.04	0.77	380	9714	0.059	164644	0.91	795	20322	605	15465
July 26	707	63	2.10	0.78	288	7362	0.054	136333	0.97	609	15567	466	11912
	708	64	2.08	0.75	508	12986	0.069	188203	0.86	835	21345	683	17459
	709	56	1.36	0.44	597	15261	0.061	250180	0.67	1027	26253	857	21907
	710	65	2.22	0.77	370	9458	0.068	139088	1.08	582	14877	494	12628
	711	62	1.88	0.62	285	7285	0.063	115635	0.92	563	14392	451	11529
	712	64	2.21	0.75	285	7285	0.059	123475	1.08	484	12372	402	10276
	713	66	2.39	0.86	305	7797	0.071	109817	1.11	624	15951	485	12398
	714	63	2.22	0.80	370	9458	0.086	109977	0.98	591	15107	492	12577
	715	65	2.24	0.80	263	6723	0.071	94690	1.11	581	14852	448	11452
	716	62	1.71	0.60	553	14136	0.069	204870	0.85	762	19479	676	17280
Aug 2	717	64	2.35	0.87	365	9330	0.048	194375	1.16	670	17127	539	13778
	718	67	2.38	0.90	226	5777	0.053	109000	1.13	447	11426	349	8921
	719	58	1.55	0.58	266	6800	0.059	115254	0.66	553	14136	419	10711
	720	54	1.08	0.30	491	12551	0.092	136424	0.57	517	13216	508	12986
	721	64	2.02	0.79	333	8512	0.056	152000	0.97	667	17050	517	13216
	722	64	2.51	0.94	331	8461	0.042	201452	1.07	545	13931	445	11375
	723	64	2.24	0.83	494	12628	0.057	221544	0.98	636	16258	571	14596
	724	64	2.25	0.84	550	14059	0.071	198014	1.03	709	18124	638	16309
	725	62	1.89	0.68	430	10992	0.087	126345	0.94	571	14596	512	13088
	726	58	1.60	0.62	356	9100	0.059	154237	0.68	628	16053	498	12730
Aug 9	727	66	2.53	0.92	532	13599	0.063	215857	1.17	604	15440	572	14622
	728	80	4.72	1.76	249	6365	0.084	75774	2.29	351	8972	307	7848
	729	64	2.28	0.89	412	10532	0.046	228957	1.08	575	14698	501	12807
	730	68	2.59	1.04	337	8615	0.062	138952	1.22	513	13113	432	11043
	731	63	2.09	0.73	484	12372	0.064	193313	0.99	534	13650	513	13113
	732	60	1.64	0.59	491	12551	0.063	199222	0.75	611	15619	558	14264
	733	74	3.75	1.51	612	15644	0.066	237030	1.81	688	17587	653	16692
	734	66	2.66	0.99	660	16871	0.076	221987	1.21	703	17970	684	17485
	735	59	1.59	0.45	515	13165	0.068	193603	0.88	645	16488	601	15363
	736	65	2.56	0.93	277	7081	0.059	120017	1.18	480	12270	391	9995
Aug 16	737	66	2.44	0.91	582	14877	0.042	354214	1.25	611	15619	599	15312
	738	66	2.55	0.94	650	16616	0.064	259625	1.26	646	16513	648	16564
	739	70	3.09	1.25	928	23722	0.049	484122	1.45	878	22444	901	23032
	740	68	2.67	1.00	673	17203	0.075	229373	1.25	643	16437	656	16769
	741	62	2.34	0.93	565	14443	0.047	307298	1.06	573	14647	569	14545
	742	78	4.60	1.87	489	12500	0.038	328947	2.07	536	13701	514	13139
	743	75	4.69	1.90	785	20066	0.031	647290	1.87	636	16258	711	18175
	744	63	2.15	0.88	459	11733	0.029	404586	1.01	551	14085	508	12986
	745	70	2.87	1.22	934	23875	0.067	356343	1.22	844	21575	889	22725
	746	71	3.49	1.34	770	19683	0.050	393660	1.53	733	18737	750	19172
Aug 23	747	74	3.91	1.46	1405	35915	0.076	472566	1.91	1054	26943	1206	30828
	748	66	2.46	0.88	785	20066	0.056	358321	1.20	667	17050	717	18328
	749	72	3.18	1.19	1010	25818	0.066	391182	1.55	893	22827	944	24131
	750	65	2.39	0.90	728	18609	0.068	273662	1.17	727	18584	727	18584
	751	72	3.21	1.11	750	19172	0.069	277855	1.70	552	14110	630	16104
	752	69	2.94	1.09	902	23057	0.065	354723	1.45	844	21575	869	22214
	753	67	2.64	0.97	957	24463	0.063	388302	1.30	841	21498	891	22776
	754	73	3.57	1.29	1069	27326	0.065	420400	1.75	897	22929	970	24796
	755	81	5.39	2.08	1235	31570	0.089	354719	2.54	1128	28834	1176	30061
	756	66	2.51	0.93	845	21600	0.092	234783	1.19	720	18405	775	19811

Table A.3.60. Cont'd.

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (μg/g)	Specific activity (dpm/μg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
Aug 29		No sample											
Sept 30	757	70	3.00	1.11	1268	32413	0.070	463043	1.36	860	21984	1043	26662
	758	80	4.98	1.82	1159	29627	0.048	617229	2.33	848	21677	984	25153
	759	85	5.76	2.09	897	22929	0.050	458580	2.71	646	16513	755	19300
	760	74	3.39	1.23	1518	38804	0.066	587939	1.59	892	22802	1165	29780
	761	75	3.89	1.43	821	20987	0.049	428306	1.69	544	13906	671	17152
	762	90	7.14	2.54	716	18303	0.055	332782	3.48	500	12781	591	15107
	763	71	2.94	1.02	1284	32822	0.064	512844	1.42	867	22163	1041	26610
	764	78	4.70	1.71	1409	36017	0.061	590443	2.17	952	24335	1153	29473
	765	82	4.94	1.75	965	24668	0.046	536261	2.24	664	16973	796	20348
	766	71	3.39	1.27	1457	37244	0.071	524563	1.63	906	23160	1147	29320

Table A.3.61. Mean mercury content of yellow perch from C84-7, a sediment-bottomed control limnocorral, 1984. (For sample sizes, see Table A.3.60).

		Whole fish		Muscle tissue					Carcass			Combined muscle/carcass	
Date(s) sampled	Fish no.	Total length (mm)	Round wt (g)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	Total Hg (µg/g)	Specific activity (dpm/µg)	Wt (g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)	^{203}Hg (cpm/g)	^{203}Hg (dpm/g)
June 25	Time 0	59	1.72	0.66			0.073						
July 12	701-706	59	1.88	0.67	272	6949	0.079	93369	0.97	630	16096	485	12385
July 26	707-716	63	2.04	0.72	382	9775	0.067	147227	0.96	666	17020	545	13942
Aug 2	717-726	62	1.99	0.74	384	9821	0.062	160865	0.92	594	15192	500	12771
Aug 9	727-736	67	2.64	0.98	457	11680	0.065	182471	1.26	570	14581	521	13323
Aug 16	737-746	69	3.09	1.22	684	17472	0.049	376546	1.40	665	17002	675	17242
Aug 23	747-756	71	3.22	1.19	969	24760	0.071	352651	1.58	832	21276	891	22763
Aug 29		No sample											
Sept 30	757-766	78	4.41	1.6	1149	29381	0.058	505199	2.06	768	19629	935	23891

Appendix 4

Activity of radioisotopes in invertebrates, on limnocorral material, and in sediments, 1981-1983

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Table A.4.1. ^{203}Hg in netplankton; 1981 limnocorral experiment.

Date	Day of Year	C81-1 Sample wt (mg)	C81-1 Standing crop (mg/L)	C81-1 Activity (dpm/mg)	C81-1 Activity (dpm/L)	LM81-2 Sample wt (mg)	LM81-2 Standing crop (mg/L)	LM81-2 Activity (dpm/mg)	LM81-2 Activity (dpm/L)	PN81-3 Sample wt (mg)	PN81-3 Standing crop (mg/L)	PN81-3 Activity (dpm/mg)	PN81-3 Activity (dpm/L)
July 3	184	5.14	0.066	1460	96.3	4.64	0.059	1237	73.6	6.37	0.082	1228	100.3
July 7	188	6.59	0.084	1162	98.1	5.33	0.068	1023	69.9	8.35	0.107	1935	207.2
July 19	200	12.16	0.156	245	38.1	6.38	0.082	685	56.0	5.26	0.067	1840	124.0
Aug 2	214	5.42	0.070	430	29.9	3.97	0.051	1342	68.3	5.98	0.077	1195	91.6
Aug 23	235	3.14	0.040	445	17.9	13.13	0.168	1039	174.9	8.91	0.114	879	100.4

Date	Day of year	LS81-4 Sample wt (mg)	LS81-4 Standing crop (mg/L)	LS81-4 Activity (dpm/mg)	LS81-4 Activity (dpm/L)	C81-5 Sample wt (mg)	C81-5 Standing crop (mg/L)	C81-5 Activity (dpm/mg)	C81-5 Activity (dpm/L)	HS81-6 Sample wt (mg)	HS81-6 Standing crop (mg/L)	HS81-6 Activity (dpm/mg)	HS81-6 Activity (dpm/L)
July 3	184	3.72	0.048	1282	61.1	4.40	0.056	1117	63.0	7.10	0.091	640	58.3
July 7	188	6.15	0.079	1423	112.2	4.36	0.056	2210	123.5	5.70	0.073	1101	80.5
July 19	200	7.36	0.094	600	56.6	7.90	0.101	970	98.2	6.54	0.084	489	41.0
Aug 2	214	7.50	0.096	416	40.0	6.69	0.086	1431	122.7	7.54	0.097	444	42.9
Aug 23	235	7.88	0.101	371	37.5	3.07	0.039	2015	79.3	6.32	0.081	369	29.9

Date	Day of year	C81-7 Sample wt (mg)	C81-7 Standing crop (mg/L)	C81-7 Activity (dpm/mg)	C81-7 Activity (dpm/L)
July 3	184	6.88	0.088	1432	126.3
July 7	188	6.12	0.078	2190	171.8
July 19	200	8.33	0.107	1829	195.3
Aug 2	214	3.83	0.049	1396	68.5
Aug 23	235	19.17	0.246	970	238.4

Table A.4.2. ^{203}Hg in netplankton; 1982 limnocorral experiment.

Date	Day of year	FM82-1				LM82-3				HM82-4			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 5	186	5.85	0.078	714	55.4	4.91	0.065	356	23.2	2.27	0.030	926	27.9
July 12	193	-	-	-	-	2.40	0.032	604	19.2	4.97	0.066	290	19.1
July 14	195	7.99	0.106	405	42.9	-	-	-	-	-	-	-	-
July 26	207	3.57	0.047	494	23.4	2.59	0.034	404	13.9	3.31	0.044	365	16.0
Aug 2	214	10.85	0.144	177	25.4	-	-	-	-	-	-	-	-
Aug 4	216	25.71	0.341	31	10.0	9.42	0.125	146	18.3	23.63	0.313	86	26.9
Aug 9	221	18.69	0.248	83	20.7	40.57	0.538	197	105.8	18.99	0.252	139	34.9
Aug 16	228	0.78	0.010	1328	13.7	11.43	0.152	49	7.5	13.50	0.179	152	27.2
Aug 23	235	3.66	0.049	207	10.1	2.67	0.035	240	8.5	6.10	0.081	162	13.1
Aug 28	240	9.65	0.128	99	12.7	7.93	0.105	46	4.8	18.50	0.245	54	13.2

Date	Day of year	OC82-5				C82-6				HS82-7			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 5	186	5.38	0.071	463	33.0	4.96	0.066	1096	72.1	19.71	0.261	179	46.8
July 12	193	-	-	-	-	5.27	0.070	925	64.7	9.45	0.125	331	41.4
July 14	195	11.54	0.153	73	11.2	-	-	-	-	-	-	-	-
July 26	207	0.58	0.008	1331	10.2	4.53	0.060	321	19.3	5.45	0.072	186	13.5
Aug 2	214	-	-	-	-	-	-	-	-	-	-	-	-
Aug 4	216	2.94	0.039	206	8.1	6.90	0.092	172	15.8	6.04	0.080	84	6.8
Aug 9	221	3.15	0.042	297	12.4	7.90	0.105	135	14.2	9.88	0.131	80	10.5
Aug 16	228	7.68	0.102	91	9.3	7.93	0.105	89	9.3	3.34	0.044	141	6.2
Aug 23	235	4.52	0.060	187	11.2	20.50	0.272	87	23.7	3.54	0.047	87	4.1
Aug 28	240	18.15	0.241	60	14.4	12.93	0.171	25	6.1	6.97	0.092	25	2.3

Date	Day of year	OM82-8				L82-9			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 5	186	3.06	0.041	784	31.8	-	-	-	-
July 12	193	2.94	0.039	736	28.7	-	-	-	-
July 14	195	-	-	-	-	-	-	-	-
July 26	207	20.72	0.275	270	74.1	1.74	0.023	-	-
Aug 2	214	-	-	-	-	-	-	-	-
Aug 4	216	34.84	0.462	203	93.9	7.32	0.097	-	-
Aug 9	221	17.85	0.237	218	51.6	3.43	0.046	-	-
Aug 16	228	6.80	0.090	435	39.2	3.99	0.053	-	-
Aug 23	235	2.94	0.039	410	16.0	2.79	0.037	-	-
Aug 28	240	8.00	0.106	173	18.3	3.59	0.048	-	-

Table A.4.3. ^{203}Hg in netplankton; 1983 limnocorral experiment.

		DFM83-1				SP83-2				LM83-3			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 8	189	5.30	0.070	1182	83.1	1.60	0.021	2873	61.0	4.40	0.058	848	49.5
July 15	196	3.75	0.050	1586	78.9	1.54	0.020	4285	87.5	1.44	0.019	4218	80.6
July 21	202	9.33	0.124	1249	154.6	1.82	0.024	1694	40.9	5.76	0.076	1301	99.4
July 29	210	9.65	0.128	593	75.9	2.94	0.039	1140	44.5	2.06	0.027	1013	27.7
Aug 5	217	-	-	-	-	-	-	-	-	1.78	0.024	600	14.2
Aug 12	224	24.42	0.324	221	71.6	9.30	0.123	101	12.5	8.40	0.111	388	43.2
Aug 20	232	11.11	0.147	256	37.7	2.66	0.035	153	5.4	8.15	0.108	255	27.6
Aug 25	237	-	-	-	-	-	-	-	-	8.86	0.118	187	22.0
Aug 26	238	22.84	0.303	144	43.6	9.06	0.120	94	11.3	2.62	0.035	430	14.9

		C83-4				OAS83-5				OM83-6			
Date	Day of year	Sample wtht (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 8	189	6.50	0.086	626	54.0	1.90	0.025	2451	61.8	12.20	0.162	642	103.9
July 15	196	0.65	0.009	6183	53.3	1.75	0.023	3128	72.6	2.21	0.029	2806	82.2
July 21	202	1.74	0.023	1462	33.7	3.15	0.042	1190	49.7	7.39	0.098	531	52.0
July 29	210	3.78	0.050	703	35.2	2.82	0.037	1102	41.2	0.30	0.004	6867	27.3
Aug 5	217	5.83	0.077	335	25.9	2.70	0.036	375	13.4	9.32	0.124	501	61.9
Aug 12	224	6.67	0.088	320	28.3	9.89	0.131	696	91.3	8.77	0.116	491	57.1
Aug 20	232	19.08	0.253	236	59.7	11.27	0.149	249	37.2	7.65	0.101	367	37.2
Aug 25	237	11.01	0.146	171	25.0	16.99	0.225	126	28.4	7.21	0.096	296	28.3
Aug 26	238	-	-	-	-	-	-	-	-	-	-	-	-

		LM83-7				LMS83-8				L83-9			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 8	189	9.90	0.131	454	59.6	3.20	0.042	1132	48.0	3.00	0.040	-	-
July 15	196	3.34	0.044	1989	88.1	5.25	0.070	928	64.6	1.80	0.024	-	-
July 21	202	15.07	0.200	683	136.5	6.07	0.081	466	37.5	1.91	0.025	-	-
July 29	210	2.72	0.036	945	34.1	3.87	0.051	304	15.6	-	-	-	-
Aug 5	217	3.77	0.050	469	23.5	6.84	0.091	162	14.7	7.50	0.099	-	-
Aug 12	224	6.37	0.084	443	37.4	3.27	0.043	318	13.8	1.10	0.015	-	-
Aug 20	232	24.73	0.328	90	29.5	24.73	0.328	230	75.4	1.87	0.025	-	-
Aug 25	237	11.95	0.158	180	28.5	11.95	0.158	136	21.6	-	-	-	-
Aug 26	238	-	-	-	-	-	-	-	-	2.45	0.032	-	-

Table A.4.4. ^{75}Se in netplankton; 1981 limnocorral experiment.

Date	Day of year	C81-1				LM81-2				PN81-3			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	5.14	0.066	791	52.2	4.64	0.059	610	36.3	6.37	0.082	732	59.8
July 7	188	6.59	0.084	1015	85.7	5.33	0.068	786	53.7	8.35	0.107	817	87.5
July 19	200	12.16	0.156	212	33.1	6.38	0.082	610	49.9	5.26	0.067	818	55.2
Aug 2	214	5.42	0.070	237	16.5	3.97	0.051	766	39.0	5.98	0.077	854	65.4
Aug 23	235	3.14	0.040	507	20.4	13.13	0.168	305	51.3	8.91	0.114	571	65.3

Date	Day of year	LS81-4				C81-5				HS81-6			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	3.72	0.048	467	22.3	4.40	0.056	366	20.7	7.10	0.091	230	20.9
July 7	188	6.15	0.079	742	58.5	4.36	0.056	1096	61.3	5.70	0.073	875	63.9
July 19	200	7.36	0.094	220	20.8	7.90	0.101	329	33.3	6.54	0.084	270	22.6
Aug 2	214	7.50	0.096	518	49.8	6.69	0.086	1266	108.6	7.54	0.097	796	77.0
Aug 23	235	7.88	0.101	814	82.2	3.07	0.039	-	-	6.32	0.081	445	36.1

Date	Day of year	C81-7			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	6.88	0.088	526	46.4
July 7	188	6.12	0.078	1277	100.2
July 19	200	8.33	0.107	661	70.6
Aug 2	214	3.83	0.049	909	44.7
Aug 23	235	19.17	0.246	442	108.7

Table A.4.5. ^{234}Cs in netplankton; 1981 limnocorral experiment.

		C81-1				LM81-2				PN81-3			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	5.14	0.066	193	12.7	4.64	0.059	153	9.1	6.37	0.082	100	8.2
July 7	188	6.59	0.084	174	14.7	5.33	0.068	152	10.4	8.35	0.107	155	16.6
July 19	200	12.16	0.156	44	6.8	6.38	0.082	45	3.7	5.26	0.067	120	8.1
Aug 2	214	5.42	0.070	147	10.2	3.97	0.051	136	6.9	5.98	0.077	247	18.9
Aug 23	235	3.14	0.040	105	4.2	13.13	0.168	90	15.2	8.91	0.114	203	23.2

		LS81-4				C81-5				HS81-6			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	3.72	0.048	199	9.5	4.40	0.056	87	4.9	7.10	0.091	162	14.8
July 7	188	6.15	0.079	149	11.8	3.36	0.056	173	9.7	5.70	0.073	153	11.2
July 19	200	7.36	0.094	60	5.6	7.90	0.101	88	8.9	6.54	0.084	62	5.2
Aug 2	214	7.50	0.096	96	9.2	6.69	0.086	192	16.5	7.54	0.097	68	6.6
Aug 23	235	7.88	0.101	52	5.3	3.07	0.039	394	15.5	6.32	0.081	178	14.4

		C81-7			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	6.88	0.088	139	12.2
July 7	188	6.12	0.078	145	11.4
July 19	200	8.33	0.107	482	51.5
Aug 2	214	3.83	0.049	391	19.2
Aug 23	235	19.17	0.246	1203	295.7

Table A.4.6. ^{60}Co in netplankton; 1981 limnocorral experiment.

		C81-1				LM81-2				PN81-3			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	5.14	0.066	2588	170.6	4.64	0.059	3601	214.2	6.37	0.082	2573	210.1
July 7	188	6.59	0.084	1751	147.8	5.33	0.068	1528	104.4	8.35	0.107	3044	325.9
July 19	200	12.16	0.156	189	29.5	6.38	0.082	350	28.7	5.26	0.067	1249	84.2
Aug 2	214	5.42	0.070	661	46.0	3.97	0.051	788	40.1	5.98	0.077	1411	108.1
Aug 23	235	3.14	0.040	792	31.9	13.13	0.168	803	135.3	8.91	0.114	952	108.8

		LS81-4				C81-5				HS81-6			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	3.72	0.048	2062	98.4	4.40	0.056	1796	101.3	7.10	0.091	1272	115.8
July 7	188	6.15	0.079	2508	197.7	4.36	0.056	5218	291.6	5.70	0.073	1916	140.0
July 19	200	7.36	0.094	767	72.4	7.90	0.101	1770	179.3	6.54	0.084	414	34.7
Aug 2	214	7.50	0.096	1088	104.6	6.69	0.086	2084	178.8	7.54	0.097	599	57.9
Aug 23	235	7.88	0.101	675	68.1	3.07	0.039	2261	89.0	6.32	0.081	688	55.8

		C81-7			
Date	Day of year	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	6.88	0.088	2295	202.4
July 7	188	6.12	0.078	3630	284.8
July 19	200	8.33	0.107	2530	270.2
Aug 2	214	3.83	0.049	2383	117.0
Aug 23	235	19.17	0.246	4196	1031.3

Table A.4.7. ^{65}Zn in netplankton; 1981 limnocorral experiment.

Date	Day of year	C81-1				LM81-2				PN81-3			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	5.14	0.066	632	41.7	4.64	0.059	275	16.4	6.37	0.082	902	73.6
July 7	188	6.59	0.084	973	82.1	5.33	0.068	359	24.6	8.35	0.107	1671	178.8
July 19	200	12.16	0.156	148	23.0	6.38	0.082	248	20.3	5.26	0.067	1074	72.4
Aug 2	214	5.42	0.070	-	-	3.97	0.051	-	-	5.98	0.077	-	-
Aug 23	235	3.14	0.040	612	24.6	13.13	0.168	283	47.7	8.91	0.114	892	101.8

Date	Day of year	LS81-4				C81-5				HS81-6			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)	Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	3.72	0.048	646	30.8	4.40	0.056	456	25.7	7.10	0.091	310	28.2
July 7	188	6.15	0.079	1064	83.9	4.36	0.056	1424	79.6	5.70	0.073	1237	90.4
July 19	200	7.36	0.094	214	20.2	7.90	0.101	544	55.1	6.54	0.084	72	6.0
Aug 2	214	7.50	0.096	-	-	6.69	0.086	-	-	7.54	0.097	104	10.0
Aug 23	235	7.88	0.101	372	37.6	3.07	0.039	908	35.7	6.32	0.081	325	26.3

Date	Day of year	C81-7			
		Sample wt (mg)	Standing crop (mg/L)	Activity (dpm/mg)	Activity (dpm/L)
July 3	184	6.88	0.088	-	-
July 7	188	6.12	0.078	1779	139.6
July 19	200	8.33	0.107	930	99.3
Aug 2	214	3.83	0.049	-	-
Aug 23	235	19.17	0.246	1344	330.3

Table A.4.8. ^{203}Hg in emergent insects; 1983 limnocorral experiment.

Period of Emergence	Duration (days)	LM83-3				C83-4		OAS83-5				OM83-6			
		Diptera		Ephemeroptera		Diptera		Diptera		Trichoptera		Diptera		Trichoptera	
		Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)	Sample weight (mg)	Activity (dpm/mg)
July 29 - Aug 4	6	0.98	308	6.97	21	5.15	90	13.84	7	20.99	2	19.19	104	18.65	12
Aug 15 - Aug 20	5	10.92	140	-	-	10.44	57	10.41	136	-	-	24.25	79	-	-

Table A.4.9. Isotope activity on periphyton strips (dpm/cm^2) on Aug 25 (day 237); 1981 limnocorral experiment. (The first depth interval, 0.1-0.0, is above the water surface).

Limnocorral	Depth range (m)	Isotope				
		^{203}Hg	^{75}Se	^{134}Cs	^{60}Co	^{65}Zn
C81-1	0.1 - 0.0	34.9	4.7	74.1	51.5	19.6
	0.0 - 0.1	17.4	12.5	30.1	77.3	35.7
	0.5 - 0.6	45.3	15.6	20.8	242.3	57.1
	0.9 - 1.0	118.6	29.7	60.2	675.3	76.8
	1.3 - 1.4	186.0	32.8	67.1	845.4	132.1
	1.7 - 1.8	203.5	45.3	67.1	762.9	182.1
	Means:	101.0	23.4	53.2	442.4	83.9
LM81-2	0.1 - 0.0	8.1	3.1	27.8	20.6	14.3
	0.0 - 0.1	29.1	7.8	16.2	123.7	14.3
	0.5 - 0.6	51.2	29.7	13.9	314.4	25.0
	0.9 - 1.0	75.6	14.1	16.2	329.9	35.7
	1.3 - 1.4	69.8	14.1	9.3	345.4	30.4
	1.7 - 1.8	89.5	15.6	11.6	407.2	44.6
	Means:	53.9	14.1	15.8	256.9	27.4
PN81-3	0.1 - 0.0	9.3	7.8	125.0	67.0	-
	0.0 - 0.1	37.2	10.9	76.4	108.2	-
	0.5 - 0.6	91.9	28.1	115.7	314.4	-
	0.9 - 1.0	72.1	20.3	74.1	201.0	-
	1.3 - 1.4	53.5	17.2	53.2	190.7	-
	1.7 - 1.8	73.3	17.2	57.9	170.1	-
	Means:	56.2	16.9	83.7	175.3	-
LS81-4	0.1 - 0.0	24.4	7.8	129.6	123.7	-
	0.0 - 0.1	40.7	18.8	50.9	366.0	-
	0.5 - 0.6	76.7	23.4	48.6	587.6	-
	0.9 - 1.0	65.1	32.8	34.7	541.2	-
	1.3 - 1.4	115.1	31.3	44.0	799.0	-
	1.7 - 1.8	140.7	48.4	64.8	1206.2	-
	Means:	77.1	27.1	62.1	604.0	-
C81-5	0.1 - 0.0	61.2	24.0	118.8	1034.4	145.2
	0.0 - 0.1	152.3	48.4	111.1	2412.4	250.9
	0.5 - 0.6	191.9	51.6	125.0	2824.7	269.6
	0.9 - 1.0	193.0	46.9	129.6	2752.6	260.7
	1.0 - 1.1	158.1	39.1	113.4	2288.7	204.5
	1.4 - 1.5	119.8	32.8	67.1	1701.0	142.0
	1.7 - 1.8	127.9	31.3	55.6	1814.4	135.7
	Means:	143.5	39.1	103.0	2118.3	201.2
HS81-6	0.1 - 0.0	15.1	3.1	46.3	51.5	55.4
	0.0 - 0.1	43.0	14.1	145.8	190.7	126.8
	0.5 - 0.6	57.0	23.4	27.8	443.3	32.1
	0.9 - 1.0	84.9	26.6	25.5	479.4	55.4
	1.3 - 1.4	46.5	20.3	11.6	278.4	14.3
	1.7 - 1.8	64.0	28.1	16.2	319.6	17.9
	Means:	51.7	19.3	45.5	293.8	50.3
C81-7	0.1 - 0.0	15.1	2.8	85.6	77.3	-
	0.0 - 0.1	30.2	12.5	85.6	433.0	-
	0.5 - 0.6	65.1	17.2	57.9	1866.0	-
	0.9 - 1.0	68.6	25.0	76.4	1783.5	-
	1.3 - 1.4	74.4	15.6	44.0	1505.2	-
	1.7 - 1.8	68.6	14.1	34.7	1216.5	-
	Means:	53.7	14.5	64.0	1146.9	-

Table A.4.10. ^{203}Hg activity on periphyton strips; 1983 limnocorral experiment. On Aug 11 only, replicate strips were counted.

Limnocorral	Replicate	July 29		Aug 11	
		^{203}Hg (dpm/mg)	^{203}Hg (dpm/cm^2)	^{203}Hg (dpm/mg)	^{203}Hg (dpm/cm^2)
DFM83-1	A	1706	242	250	19
	B	-	-	288	13
SP83-2	A	2693	133	-	-
LM83-3	A	1649	72	1457	283
	B	-	-	1411	303
C83-4	A	1799	37	948	125
	B	-	-	1012	125
OAS83-5	A	990	170	522	88
	B	-	-	406	60
OM83-6	A	911	20	439	5
	B	-	-	453	12
LM83-7	A	1351	26	518	60
	B	-	-	693	106
LMS83-8	A	369	128	146	213
	B	-	-	217	233

Table A.4.11. Isotope activity in sediment cores from C81-1 on Aug 26 (Day 238); 1981 limnocorral experiment.

Replicate	Depth range of core section (cm)	Isotope				
		^{203}Hg (dpm/g)	^{75}Se (dpm/g)	^{134}Cs (dpm/g)	^{60}Co (dpm/g)	^{65}Zn (dpm/g)
Core #1	0-1	8428	1759	10912	53330	8459
	1-2	298	91	310	1722	279
	2-3	40	28	32	196	45
	3-4	19	31	37	124	38
	4-5	14	13	9	52	18
	5-6	26	25	14	52	21
	6-7	7	16	9	41	21
Total core activity: (dpm/m^2)		5355103	1246076	6823868	33500458	5396488
Core #2	0-1	12888	3113	16782	85474	13677
	1-2	1384	375	1769	10093	1434
	2-3	293	97	417	2165	302
	3-4	181	100	356	2041	255
	4-5	0	22	28	206	38
	5-6	21	16	19	103	32
	6-7	16	13	14	52	20
	7-8	0	28	9	41	21
	8-9	14	22	19	62	23
	9-10	33	28	19	72	21
	10-11	12	6	0	21	13
	11-12	9	6	5	21	11
Total core activity: (dpm/m^2)		117041	122813	85442	389977	155308
Core #3	0-1	15740	3819	21523	102495	18036
	1-2	665	244	907	5175	827
	2-3	233	53	171	887	171
	3-4	53	59	88	474	105
	4-5	35	9	23	113	34
	5-6	16	25	37	82	46
	6-7	0	25	19	93	39
	7-8	16	28	37	62	41
	8-9	0	16	19	52	25
	9-10	49	34	32	72	73
	11-12	0	6	9	10	11
	12-13	16	9	14	21	14
	13-14	5	3	5	10	9
	14-15	14	16	14	31	25
Total core activity: (dpm/m^2)		124793	135208	161317	303780	232738

Table A.4.12. ^{203}Hg activity in sediment cores (dpm/g); 1982 limnocorral experiment.

Limnocorral	Replicate	Depth range of core section (cm)								Total activity in core (dpm/m^2)
		0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	
FM82-1	Core #2	34674	24070	10760	10367	1067	312	-	-	13089471
LM82-3	Core #1	11840	1912	181	105	-	-	-	-	6789170
	Core #2	14570	2637	972	1388	-	-	-	-	8982265
HM82-4	Core #1	75558	15451	2356	1181	-	-	-	-	6536076
	Core #2	6337	1295	847	1088	-	-	-	-	4869024
OC82-5	Core #1	14449	1335	765	72	98	0	0	0	7317751
	Core #2	19091	1249	500	79	112	0	-	-	10154151
C82-6	Core #1	10549	4735	1979	723	-	-	-	-	7166683
	Core #2	39677	7895	1388	405	-	-	-	-	15502016
HS82-7	Core #1	10298	4528	1765	428	-	-	-	-	12046487
	Core #2	19556	15872	1021	242	-	-	-	-	21863578
OM82-8	Core #1	42163	7640	4323	1170	4153	2021	165	-	27964357
	Core #2	26988	3970	272	200	240	107	0	-	12855563

Appendix 5

Summary of water chemistry in the limnocorrals, 1981-1983

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Table A.5.1. Chemistry data for 1981 limnocorrals. (Units are µmoles/L unless otherwise stated).

Limnocorral	Sample no.	Day of year	Cl	SO_4	Na	K	Ca	Mg	pH	DIC	Spec Cond µS/cm	Susp N	TDN	NO_3	NO_2	NH_4	Susp P	TDP	SRP	DOC	Susp C	SRSi	Fe	Mn	Chl a µg/L	TSS mg/L	O_2	O_2	
																												% Sat'n	Resp'n µmol/m^3-h
CB1-1	36	171	25	40	91	21.9	219	106	-	720	80	2.8	23.6	<0.07	-	0.20	0.26	0.16	-	750	31.8	29.1	0.75	<0.36	1.2	3	-	-	-
	44	174	-	-	-	-	-	-	-	836	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6	4	-	-	-
	52	183	17	39	101	25.7	238	119	-	688	80	7.8	20.7	0.11	<0.01	0.61	0.31	0.26	0.03	650	47.0	22.7	1.10	<0.36	3.6	4	293	-	280
	68	191	20	39	104	26.9	243	117	8.05	823	82	12.9	20.0	0.04	<0.01	0.30	0.35	0.19	<0.03	630	71.4	22.9	1.10	<0.36	4.9	5	291	96	303
	85	201	23	39	102	25.7	232	110	7.99	726	86	11.9	22.8	0.03		0.53	0.27	0.19	0.03	1900	62.6	21.5	1.10	<0.36	4.4	3	293	100	496
	176	215	17	41	100	23.8	243	117	8.23	823	83	9.9	21.4	<0.01	<0.01	0.36	0.27	0.26	<0.03	680	65.3	18.6	0.44	<0.18	4.5	3	299	100	439
	217	232	-	-	-	-	-	-	-	-	-	11.0	-	-	-	-	0.44	-	-	-	47.5	-	-	-	2.4	-	282	96	243
	230	236	23	40	106	22.6	274	144	8.17	748	91	5.1	27.8	0.03	0.01	0.31	0.14	0.26	<0.03	800	37.5	12.1	<0.36	<0.18	2.4	3	284	101	194
LMB1-2	37	171	45	144	89	21.3	230	114	-	662	86	2.9	24.3	<0.07	-	0.30	0.25	0.16	-	1620	29.8	28.8	0.38	<0.36	1.2	3	-	-	-
	45	175	-	-	-	-	-	-	-	653	-	-	-		-	-	-	-	-	-	-	-	-	-	3.0	3	-	-	-
	53	183	14	39	103	25.7	174	98	-	620	66	8.8	21.4	0.13	<0.01	0.53	0.48	0.26	<0.03	690	58.6	23.0	2.75	<0.36	5.2	4	256	-	360
	69	191	20	40	103	29.0	177	100	7.56	675	64	10.3	22.8	0.04	<0.01	0.17	0.40	0.26	0.04	700	54.0	25.0	1.10	<0.36	5.4	5	245	80	187
	86	201	23	39	98	29.0	174	94	7.29	608	-	6.8	26.4	0.04	-	0.45	0.41	0.29	0.05	760	45.3	22.2	1.65	<0.36	3.0	-	226	78	625
	177	215	17	39	101	28.3	190	108	7.73	796	70	4.0	30.0	<0.01	0.01	0.18	0.25	0.58	0.11	810	26.3	18.0	0.88	<0.18	1.7	-	240	81	366
	218	232	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-	0.82	-	-	-	49.0	-	-	-	2.6	-	244	83	408
	231	236	20	37	107	32.8	209	133	7.44	726	75	7.6	29.3	0.04	0.02	0.17	0.39	0.71	0.29	840	60.6	10.9	1.32	<0.18	2.7	2	232	83	358
PMB1-3	38	171	21	213	89	20.8	235	116	-	679	97	2.6	22.1	0.07	-	0.11	0.23	0.16	-	1720	26.0	30.5	1.13	<0.36	1.0	3	-	-	-
	46	174	-	-	-	-	-	-	-	784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.4	3	-	-	-
	54	183	14	39	104	25.2	224	112	-	648	83	11.9	22.8	0.73	0.02	0.32	0.40	0.26	0.03	650	58.3	25.6	1.10	<0.36	6.7	3	305	-	333
	65	189	-	-	-	-	-	-	-	675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	191	20	39	100	24.4	211	106	8.95	659	82	26.7	21.4	0.04	<0.01	0.23	0.44	0.19	0.04	600	141.0	24.6	0.55	<0.36	13.7	5	319	105	620
	87	201	20	39	103	22.3	211	106	9.42	547	80	31.4	25.7	0.04	-	0.37	0.48	0.16	0.07	710	162.0	22.8	1.10	<0.36	14.4	4	333	114	1274
	178	215	17	40	103	20.9	214	108	8.98	670	78	24.6	30.0	<0.01	<0.01	0.23	0.50	0.29	<0.03	720	158.9	16.6	<0.36	<0.18	10.9	-	304	102	858
	190	226	-	-	-	-	-	-	-	596	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	200	229	-	-	-	-	-	-	-	609	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	219	232	-	-	-	-	-	-	9.05	647	-	27.3	-	-	-	-	0.61	-	-	-	188.5	-	-	-	9.6	-	296	102	383
	232	236	20	41	110	21.5	232	139	9.28	609	80	21.6	35.0	0.04	0.01	0.31	0.52	0.29	<0.03	860	165.4	9.8	0.88	<0.18	9.4	4	305	109	801
LSR1-4	39	171	23	162	89	21.9	240	117	-	668	85	2.2	22.8	0.07	-	0.16	0.23	0.16	-	1620	25.1	30.4	0.75	<0.36	1.1	3	-	-	-
	47	175	-	-	-	-	-	-	-	672	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	11	-	-	-
	55	183	11	39	102	25.7	243	112	-	754	90	5.8	20.7	0.07	<0.01	0.41	0.34	0.23	0.04	590	38.0	27.6	1.10	<0.36	4.1	9	292	-	205
	71	191	23	40	98	24.8	251	110	8.31	900	90	9.6	20.0	0.03	<0.01	0.34	0.48	0.26	0.07	570	61.3	28.2	1.10	<0.36	7.6	12	293	96	289
	88	201	20	39	101	24.4	266	110	8.43	727	95	11.0	20.7	0.02	-	0.29	0.36	0.16	0.04	610	71.1	27.1	1.10	<0.36	6.2	-	287	99	455
	179	215	17	40	100	23.2	290	121	8.49	1060	95	11.4	23.6	<0.01	<0.01	0.20	0.49	0.29	0.04	660	75.6	24.8	2.21	<0.18	4.7	13	288	96	389
	191	226	-	-	-	-	-	-	-	925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	201	229	-	-	-	-	-	-	-	903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	220	232	-	-	-	-	-	-	8.07	1015	-	8.7	-	-	-	-	0.34	-	-	-	58.0	-	-	-	1.8	-	272	93	70
	233	236	23	42	105	23.8	333	137	8.22	1020	106	9.5	26.4	0.35	0.15	1.26	0.30	0.26	0.03	700	53.6	22.3	0.88	<0.18	1.8	10	268	96	270
CR1-5	40	171	28	187	89	20.8	230	112	-	664	93	3.0	22.1	<0.07	-	0.12	0.26	0.13	-	1950	25.6	30.6	0.75	<0.36	0.9	3	-	-	-
	48	174	-	-	-	-	-	-	-	766	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	-	-	-	-
	56	183	17	40	103	24.4	219	110	-	725	78	7.6	18.6	0.08	<0.01	0.11	0.23	0.23	<0.03	570	39.6	27.6	1.10	<0.36	3.6	3	299	-	281
	72	191	25	42	101	25.2	214	104	8.27	760	78	13.9	20.7	0.03	<0.01	0.21	0.30	0.19	0.05	600	75.3	27.5	0.55	<0.36	6.8	3	300	98	382
	89	201	20	39	98	23.2	214	110	8.29	736	83	14.4	22.8	0.02		0.33	0.26	0.16	0.04	610	82.6	24.6	1.10	<0.36	5.3	-	302	104	504
	180	215	17	40	99	20.9	222	112	8.21	867	77	10.9	30.7	<0.01	<0.01	0.11	0.26	0.19	<0.03	690	70.8	15.9	<0.36	<0.18	3.4	2	296	99	394
	192	226	-	-	-	-	-	-	-	682	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	202	229	-	-	-	-	-	-	-	607	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	221	232	-	-	-	-	-	-	7.96	741	-	5.2	-	-	-	-	0.14	-	-	-	40.6	-	-	-	0.9	-	281	96	117
	234	236	20	41	102	23.2	243	131	8.09	726	80	3.4	29.3	0.08	0.02	1.32	0.05	0.19	0.03	750	29.0	4.3	<0.36	<0.18	1.0	2	281	100	145

Table A.5.1. Cont'd.

Limnocorral	Sample no.	Day of year	Cl	SO_4	Na	K	Ca	Mg	pH	DIC	Spec Cond µS/cm	Susp N	TDN	NO_3	NO_2	NH_4	Susp P	TDP	SRP	DOC	Susp C	SRSi	Fe	Mn	Chl a µg/L	TSS mg/L	O_2	O_2	
																												% Sat'n	Resp'n µmol/m³-h
HS81-6	41	171	28	196	88	21.3	235	116	-	718	95	2.1	23.6	0.07	-	0.10	0.18	0.13	-	1890	25.3	30.4	0.38	<0.36	1.0	2	-	-	-
	49	175	-	-	-	-	-	-	-	685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.4	21	-	-	-
	57	183	17	40	106	27.3	248	108	-	822	-	5.8	18.6	0.06	0.01	0.11	0.62	0.26	0.04	600	37.0	28.9	1.65	<0.36	3.5	22	287	-	202
	73	191	20	41	103	26.1	264	110	8.25	943	91	7.4	19.3	0.03	<0.01	0.36	0.58	0.23	0.06	630	42.0	30.1	2.20	<0.36	5.1	19	285	93	166
	90	201	20	39	97	24.0	290	119	8.41	926	103	6.6	20.0	0.11	-	0.34	0.45	0.19	0.03	610	41.8	29.4	1.65	<0.36	3.7	-	278	96	353
	181	215	17	48	101	22.1	330	127	8.34	1080	102	5.9	21.4	0.02	0.01	0.23	0.48	0.32	0.06	700	38.0	27.8	3.53	<0.18	2.4	14	287	96	164
	193	226	-	-	-	-	-	-	-	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	203	228	-	-	-	-	-	-	-	982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	222	232	-	-	-	-	-	-	8.13	1092	-	5.8	-	-	-	-	0.43	-	-	-	39.8	-	-	-	1.6	-	276	94	52
	235	236	20	41	102	24.3	375	135	8.29	1120	114	4.0	21.4	0.05	0.01	0.31	0.28	0.23	0.04	720	29.6	27.7	0.44	<0.18	1.5	13	272	96	145
C81-7	42	171	39	48	87	20.8	216	108	-	688	80	2.7	22.8	0.07	-	0.38	0.21	0.16	-	690	25.8	30.4	0.38	<0.36	1.1	2	-	-	-
	50	174	-	-	-	-	-	-	-	796	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	3	-	-	-
	58	183	31	40	102	26.1	214	106	-	727	-	7.5	21.4	0.07	<0.01	0.15	0.23	0.23	<0.03	600	41.0	27.6	1.10	<0.36	3.5	3	295	-	272
	66	189	-	-	-	-	-	-	-	753	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	74	191	20	41	100	24.0	224	112	8.35	776	77	15.3	20.0	0.01	0.01	0.24	0.30	0.16	0.03	600	80.4	27.5	0.55	<0.36	7.1	2	300	98	418
	91	201	17	39	99	23.6	216	114	8.33	724	84	12.3	22.8	0.02	-	0.43	0.37	0.16	0.05	630	75.4	24.2	0.55	<0.36	4.9	2	296	103	588
	182	215	17	40	98	22.1	243	116	8.20	909	77	8.3	28.6	0.02	0.01	0.26	0.19	0.23	<0.03	690	56.0	16.2	<0.36	<0.18	2.2	2	296	99	346
	223	232	-	-	-	-	-	-	-	-	-	4.5	-	-	-	-	0.17	-	-	-	36.5	-	-	-	0.7	-	287	98	59
	236	236	20	41	105	23.2	235	121	8.12	687	80	4.0	31.4	0.08	0.02	1.22	0.15	0.26	<0.03	730	34.0	3.1	<0.36	<0.18	0.7	2	284	99	152
L81-8	43	171	20	49	90	21.3	219	112	-	707	81	2.3	22.1	0.07	-	0.49	0.28	0.16	-	680	24.5	30.2	0.75	<0.36	1.1	4	-	-	-
	51	175	-	-	-	-	-	-	-	712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	4	-	-	-
	59	183	17	37	105	25.2	222	112	-	759	-	4.0	17.8	0.02	<0.01	0.33	0.30	0.23	0.04	560	29.3	27.8	1.10	<0.36	3.0	6	284	-	215
	67	189	-	-	-	-	-	-	-	880	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	191	20	40	105	26.1	230	112	7.92	780	79	5.8	20.7	0.02	0.02	0.52	0.35	0.23	0.04	570	40.1	29.3	1.10	<0.36	4.7	7	279	91	294
	92	201	20	37	99	22.8	238	117	7.94	831	90	4.9	21.4	0.02	-	0.50	0.28	0.19	0.04	600	39.0	29.5	1.10	<0.36	3.1	3	279	95	376
	183	215	17	39	99	22.1	248	125	8.07	1040	85	4.4	22.8	<0.01	0.01	0.25	0.22	0.26	<0.03	640	29.8	29.2	0.44	<0.18	1.9	-	278	94	299
	224	232	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-	0.27	-	-	-	41.0	-	-	-	1.8	-	274	94	125
	237	236	20	39	105	24.9	266	129	7.93	870	89	4.9	22.8	0.01	0.01	0.54	0.21	0.29	<0.03	690	35.3	33.6	0.88	<0.18	2.2	-	271	95	260

Table A.5.2. Absorbances for 1981 limnocorrals.

Limno-corral	Sample no.	Day of year	Absorbances (10 cm path length)			
			455 nm	543 nm		
			Centri	Unfilt	Filt	Centri
C81-1	36	171	0.055	0.100	0.038	0.021
	44	174	-	-	-	-
	52	183	0.048	0.073	0.023	0.013
	68	191	0.048	0.129	0.035	0.018
	85	201	0.041	0.102	0.025	0.013
	176	215	0.050	0.115	0.022	0.012
	217	232	-	-	-	-
	230	236	0.040	0.070	0.023	0.012
LM81-2	37	171	0.048	0.087	0.032	0.020
	45	175	-	-	-	-
	53	183	0.064	0.060	0.030	0.022
	69	191	0.076	0.154	0.044	0.031
	86	201	0.071	0.082	0.039	0.025
	177	215	0.073	0.052	0.032	0.027
	218	232	-	-	-	-
	231	236	0.068	0.069	0.031	0.023
PN81-3	38	171	0.043	0.087	0.032	0.018
	46	174	-	-	-	-
	54	183	0.046	0.072	0.023	0.015
	65	189	-	-	-	-
	70	191	0.046	0.140	0.024	0.016
	87	201	0.042	0.147	0.019	0.013
	178	215	0.040	0.171	0.018	0.010
	190	226	-	-	-	-
	200	229	-	-	-	-
	219	232	-	-	-	-
	232	236	0.040	0.150	0.027	0.013
LS81-4	39	171	0.049	0.085	0.034	0.018
	47	175	-	-	-	-
	55	183	0.050	0.113	0.040	0.016
	71	191	0.045	0.312	0.042	0.017
	88	201	0.040	0.217	0.039	0.012
	179	215	0.062	0.438	0.076	0.023
	191	226	-	-	-	-
	201	229	-	-	-	-
	220	232	-	-	-	-
	233	236	0.038	0.355	0.105	0.013
C81-5	40	171	0.044	0.083	0.037	0.018
	48	174	-	-	-	-
	56	183	0.044	0.061	0.022	0.014
	72	191	0.042	0.092	0.024	0.016
	89	201	0.037	0.085	0.018	0.010
	180	215	0.037	0.078	0.018	0.010
	192	226	-	-	-	-
	202	229	-	-	-	-
	221	232	-	-	-	-
	234	236	0.034	0.049	0.026	0.011
HS81-6	41	171	0.042	0.065	0.030	0.014
	49	175	-	-	-	-
	57	183	0.051	0.480	0.085	0.019
	73	191	0.052	0.585	0.118	0.022
	90	201	0.045	0.408	0.102	0.016
	181	215	0.069	0.042	0.109	0.028
	193	226	-	-	-	-
	203	228	-	-	-	-
	222	232	-	-	-	-
	235	236	0.032	0.452	0.162	0.010
C81-7	42	171	0.052	0.072	0.030	0.020
	50	174	-	-	-	-
	58	183	0.043	0.048	0.023	0.015
	66	189	-	-	-	-
	74	191	0.043	0.085	0.020	0.017
	91	201	0.038	0.086	0.014	0.010
	182	215	0.038	0.070	0.020	0.010
	223	232	-	-	-	-
	236	236	0.034	0.050	0.030	0.010
L81-8	43	171	0.055	0.123	0.040	0.021
	51	175	-	-	-	-
	59	183	0.048	0.081	0.032	0.018
	67	189	-	-	-	-
	75	191	0.045	0.165	0.038	0.018
	92	201	0.040	0.108	0.030	0.014
	183	215	0.039	0.088	0.036	0.012
	224	232	-	-	-	-

Table A.5.3. Chemistry data for the 1982 limnocorrals. (Units are µmoles/L unless otherwise stated).

Limnocorral	Sample no.	Day of year	Cl	SO₄	Na	K	Ca	Mg	pH	DIC	Spec Cond µS/cm	Susp N	TDN	Susp P	TDP	DOC	Susp C	Fe	Mn	Chl a µg/L	O₂	O₂ Saturation %	Absorbances (10 cm cell) 455 nm Centri	Unfilt	543 nm Filt	Centri
FM82-1	1	181	20	39	98	24.3	310	122	7.67	-	88	13.6	22.8	0.40	0.26	1920	96.3	2.00	<0.18	1.8	-	-	0.078	0.205	0.056	0.028
	12	186	23	40	98	25.2	305	122	7.67	-	92	16.1	24.3	0.34	0.32	1070	94.6	2.00	<0.18	1.9	-	-	0.082	0.142	0.053	0.034
	32	187	-	-	-	-	-	-	7.63	-											-	-	-	-	-	-
	23	188	23	39	103	25.2	307	128	7.81	869	94	15.3	27.1	0.34	0.39	510	133.2	2.00	<0.18	2.3	257	84	0.085	0.153	0.051	0.034
	63	190	-	-	-	-	-	-	7.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	91	195	-	-	-	-	-	-	-	867	-	17.3	-	0.36	-	-	114.6	-	-	2.0	-	-	-	-	-	-
	116	202	23	39	104	22.9	296	128	7.59	882	94	12.1	25.7	0.48	0.29	1810	76.6	2.00	<0.18	2.4	271	89	0.075	0.089	0.038	0.028
	162	203	-	-	-	-	-	-	7.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	143	207	-	-	-	-	-	-	7.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	153	209	-	-	-	-	-	-	7.61	916	94	13.1	-	0.34	-	-	82.3	-	-	1.7	-	-	-	-	-	-
	187	215	23	39	100	25.7	312	136	7.78	830	98	19.6	25.0	0.41	0.29	700	125.6	2.50	<0.18	2.2	276	-	0.078	0.084	0.038	0.024
	266	221	-	-	-	-	-	-	7.67	864	97	18.3	-	0.48	-	-	124.6	-	-	2.4	-	-	-	-	-	-
	290	228	20	37	99	24.7	289	134	7.80	899	92	17.2	23.6	0.59	0.42	810	276.1	1.66	0.28	3.6	270	-	0.068	0.126	0.040	0.024
	325	235	17	37	107	25.8	308	140	7.87	952	97	8.4	19.3	0.39	0.45	1560	81.6	1.66	0.28	2.2	280	88	0.060	0.190	0.038	0.024
	353	240	17	37	100	24.2	291	136	7.73	883	93	15.8	25.0	0.35	0.42	600	192.8	1.10	<0.36	1.9	-	-	0.065	0.087	0.032	0.020
LM82-3	3	181	14	67	99	25.2	300	132	7.74	-	86	12.3	21.4	0.34	0.23	1170	66.9	1.50	<0.18	1.7	-	-	0.069	0.182	0.060	0.023
	13	186	25	43	97	26.1	239	94	7.29	-	75	12.1	22.8	0.31	0.29	1080	61.9	1.50	0.24	1.9	-	-	0.086	0.130	0.053	0.034
	33	187	-	-	-	-	-	-	7.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	25	188	23	40	99	26.6	239	94	7.42	700	75	12.1	25.0	0.28	0.29	480	63.3	1.00	0.24	2.1	259	83	0.088	0.110	0.048	0.036
	64	190	-	-	-	-	-	-	7.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	93	195	-	-	-	-	-	-	-	739	-	9.4	-	0.21	-	-	53.0	-	-	1.4	-	-	-	-	-	-
	118	202	23	39	97	28.0	230	98	7.36	728	75	7.4	24.3	0.19	0.42	800	47.3	1.50	<0.18	1.4	244	80	0.087	0.068	0.049	0.034
	164	203	-	-	-	-	-	-	7.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	145	207	-	-	-	-	-	-	7.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	155	209	-	-	-	-	-	-	7.58	708	76	8.3	-	0.25	-	-	50.0	-	-	1.3	-	-	-	-	-	-
	189	215	25	36	101	31.3	244	112	7.64	698	78	10.3	23.6	0.34	0.65	790	56.6	1.50	<0.18	1.7	248	80	0.084	0.057	0.034	0.028
	268	221	-	-	-	-	-	-	7.48	675	78	10.8		0.31			61.6			2.0	-	-	-	-	-	-
	292	228	20	37	99	29.8	245	117	7.72	755	76	8.6	24.3	0.57	0.71	1850	62.6	1.10	0.28	5.3	261	-	0.075	0.063	0.039	0.028
	327	235	17	36	107	32.8	250	123	7.72	765	80	12.4	24.3	0.96	0.61	1110	88.9	0.55	<0.36	6.7	263	83	0.067	0.099	0.030	0.025
	355	240	17	35	100	32.3	229	117	7.65	714	76	19.3	25.0	0.67	0.55	670	152.4	0.55	<0.36	6.7	-	-	0.067	0.067	0.028	0.022
HM82-4	4	181	11	69	97	24.3	305	124	7.63	-	88	9.7	22.1	0.30	0.26	900	53.6	1.50	<0.18	1.4	-	-	0.069	0.187	0.059	0.023
	14	186	20	40	98	25.2	171	80	6.91	-	59	11.6	22.8	0.35	0.32	650	74.3	1.50	<0.18	1.8	-	-	0.101	0.132	0.062	0.043
	34	187	-	-	-	-	-	-	6.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	26	188	20	40	96	26.1	164	84	7.09	536	57	11.6	25.0	0.41	0.29	740	68.6	1.50	0.24	2.2	232	75	0.095	0.119	0.054	0.038
	65	190	-	-	-	-	-	-	6.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	94	195	-	-	-	-	-	-	-	620	-	11.1	-	0.35	-	-	78.3	-	-	2.4	-	-	-	-	-	-
	119	202	25	36	100	33.6	153	84	6.94	573	55	14.0	27.1	0.41	0.48	660	121.2	1.50	<0.18	2.6	216	71	0.104	0.092	0.055	0.040
	165	203	-	-	-	-	-	-	6.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	146	207	-	-	-	-	-	-	7.21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	156	209	-	-	-	-	-	-	7.00	572	58	21.1	-	0.74	-	-	121.9	-	-	4.8	-	-	-	-	-	-
	190	215	23	33	97	39.2	160	90	7.40	566	58	30.4	27.1	0.96	0.65	850	170.2	1.00	<0.18	7.4	205	-	0.104	0.084	0.045	0.038
	269	221	-	-	-	-	-	-	7.14	536	57	31.2	-	1.01	-	-	171.5	-	-	8.9	-	-	-	-	-	-
	293	228	20	34	106	39.4	158	86	7.35	612	56	14.9	27.8	0.98	0.65	850	95.9	0.55	0.28	7.8	215	-	0.095	0.076	0.042	0.041
	328	235	17	32	100	42.9	150	90	7.50	634	59	18.8	31.4	1.20	0.71	1080	124.7	1.10	0.28	12.6	208	66	0.098	0.148	0.049	0.043
	356	240	17	32	95	40.9	139	86	7.11	607	56	25.3	31.4	1.03	0.77	870	161.1	0.55	0.28	6.3	-	-	0.100	0.100	0.048	0.040

Table A.5.3. Cont'd.

Limnocorral	Sample no.	Day of year	Cl	SO_4	Na	K	Ca	Mg	pH	DIC	Spec Cond µS/cm	Susp N	TDN	Susp P	TDP	DOC	Susp C	Fe	Mn	Chl a µg/L	O_2	O_2 Saturation %	Absorbances (10 cm cell) 455 nm Centri	543 nm Unfilt	Filt	Centri
DC82-5	5	181	20	40	102	25.2	319	130	7.72	-	88	9.7	20.7	0.31	0.23	750	65.9	1.50	<0.18	1.6	-	-	0.071	0.160	0.054	0.024
	15	186	23	42	97	25.2	307	124	7.78	-	91	10.7	20.7	0.30	0.23	1460	55.6	1.00	<0.18	1.9	-	-	0.068	0.112	0.046	0.025
	35	187	-	-	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	27	188	20	40	104	25.2	317	128	7.97	840	92	10.0	22.1	0.26	0.19	520	60.6	1.00	<0.18	1.7	287	93	0.075	0.113	0.042	0.026
	66	190	-	-	-	-	-	-	7.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	95	195	-	-	-	-	-	-	-	812	-	16.4	-	0.32	-	-	104.6	-	-	2.7	-	-	-	-	-	-
	120	202	23	37	102	24.7	312	130	7.93	846	94	11.6	22.1	0.27	0.19	800	66.6	0.50	<0.18	2.2	292	96	0.053	0.075	0.028	0.015
	166	203	-	-	-	-	-	-	7.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	147	207	-	-	-	-	-	-	8.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	157	209	-	-	-	-	-	-	8.03	844	93	9.0	-	0.21	-	-	58.0	-	-	1.5	-	-	-	-	-	-
	191	215	23	39	97	25.2	310	128	7.90	792	97	12.8	22.1	0.36	0.23	640	71.9	0.50	<0.18	2.1	288	92	0.049	0.048	0.018	0.010
	270	221	-	-	-	-	-	-	7.88	834	97	12.5	-	0.35	-	-	71.3	-	-	2.0	-	-	-	-	-	-
	294	228	20	37	99	24.2	289	128	7.87	880	92	6.2	21.4	0.28	0.39	610	42.0	<0.54	0.28	2.9	272	-	0.043	0.060	0.020	0.013
	329	235	17	39	102	24.2	308	134	7.85	924	94	7.1	20.7	0.36	0.36	670	53.1	0.55	<0.36	2.3	275	87	0.038	0.068	0.020	0.015
	357	240	20	37	99	25.3	289	130	7.82	892	94	12.1	23.6	0.31	0.39	590	95.8	<0.54	<0.36	2.5	-	-	0.042	0.055	0.018	0.011
C82-6	6	181	20	39	96	24.7	303	122	7.70	-	88	10.7	22.1	0.31	0.23	610	61.6	1.50	<0.18	1.4	-	-	0.071	0.173	0.058	0.025
	16	186	20	40	96	24.7	293	122	7.80	-	91	10.1	20.7	0.28	0.29	1270	55.6	1.50	<0.18	1.8	-	-	0.082	0.137	0.052	0.032
	36	187	-	-	-	-	-	-	7.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	28	188	23	40	97	24.7	305	126	7.92	840	92	12.0	22.1	0.28	0.23	730	64.9	1.50	<0.18	1.7	284	91	0.078	0.124	0.052	0.032
	67	190	-	-	-	-	-	-	7.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	96	195	-	-	-	-	-	-	-	830	-	12.3	-	0.21	-	-	74.6	-	-	1.6	-	-	-	-	-	-
	121	202	25	39	97	25.2	310	128	7.79	855	93	10.3	22.8	0.28	0.29	710	63.3	1.50	<0.18	1.9	278	91	0.068	0.090	0.044	0.022
	167	203	-	-	-	-	-	-	7.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	148	207	-	-	-	-	-	-	7.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	158	209	-	-	-	-	-	-	7.92	844	94	12.4	-	0.22	-	-	75.3	-	-	1.8	-	-	-	-	-	-
	192	215	23	40	96	24.3	305	140	7.90	783	98	14.1	22.8	0.31	0.26	770	81.3	1.00	<0.18	3.3	289	-	0.063	0.065	0.026	0.018
	271	221	-	-	-	-	-	-	7.90	834	97	19.6	-	0.40	-	-	109.2	-	-	3.9	-	-	-	-	-	-
	295	228	20	40	99	23.7	291	132	7.85	851	92	10.2	22.8	0.39	0.36	960	70.3	0.55	0.28	4.9	281	-	0.051	0.068	0.025	0.018
	330	235	17	40	110	24.2	327	150	7.92	896	96	17.1	22.8	0.59	0.39	700	114.6	0.55	<0.36	4.7	288	91	0.043	0.079	0.020	0.016
	358	240	20	40	99	24.2	286	132	7.83	866	94	31.7	24.3	1.01	0.36	640	204.0	<0.54	<0.36	3.2	-	-	0.046	0.070	0.021	0.015
HS82-7	7	181	20	39	99	24.3	312	124	7.69	-	88	12.0	21.4	0.30	0.23	1350	60.0	1.50	<0.18	1.3	-	-	0.072	0.194	0.060	0.027
	17	186	23	41	97	26.1	347	128	8.00	-	102	12.8	22.1	0.93	0.29	550	103.9	2.00	<0.18	2.1	-	-	0.087	0.660	0.121	0.035
	37	187	-	-	-	-	-	-	8.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	29	188	25	39	99	26.1	362	130	8.12	937	104	12.6	22.1	0.56	0.26	690	82.9	2.00	<0.18	2.0	298	96	0.077	0.600	0.109	0.030
	68	190	-	-	-	-	-	-	8.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	97	195	-	-	-	-	-	-	-	958	-	12.9	-	0.58	-	-	78.9	-	-	2.6	-	-	-	-	-	-
	122	202	23	39	97	26.1	415	138	8.01	1060	115	11.2	22.1	0.53	0.32	680	70.6	2.00	<0.18	3.2	276	91	0.063	0.442	0.120	0.018
	168	203	-	-	-	-	-	-	8.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	171	203	-	-	-	-	-	-	8.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	149	207	-	-	-	-	-	-	8.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	159	209	-	-	-	-	-	-	8.03	1080	118	14.0	-	0.61	-	-	70.3	-	-	2.9	-	-	-	-	-	-
	193	215	20	40	104	25.7	453	148	8.07	1040	123	18.2	22.1	0.81	0.32	770	115.6	1.50	<0.18	4.9	285	-	0.060	0.340	0.091	0.018
	272	221	-	-	-	-	-	-	8.02	1152	123	-	-	0.59	-	-	104.6	-	-	3.5	-	-	-	-	-	-
	296	228	<28	375	103	25.3	444	150	8.07	1176	121	8.1	20.7	0.81	0.42	3550	66.3	0.55	0.28	4.7	276	-	0.042	0.354	0.056	0.017
	331	235	20	39	106	25.3	482	165	8.20	1269	130	7.5	20.0	0.70	0.55	610	58.3	0.55	<0.36	4.1	281	89	0.040	0.389	0.074	0.015
	359	240	20	39	108	24.7	482	160	8.25	1249	129	12.5	20.0	0.74	0.45	2400	118.2	0.55	0.28	3.7	-	-	0.045	0.490	0.075	0.012

Table A.5.3. Cont'd.

Limnocorral	Sample no.	Day of year	Cl	SO_4	Na	K	Ca	Mg	pH	DIC	Spec Cond μS/cm	Susp N	TDN	Susp P	TDP	DOC	Susp C	Fe	Mn	Chl a μg/L	O_2	O_2 Saturation %	Absorbances (10 cm cell)			
																							455 nm		543 nm	
																							Centri	Unfilt	Filt	Centri
ONR2-R	8	181	17	41	97	24.7	305	120	7.76	-	88	9.6	22.1	0.26	0.29	1140	49.3	1.50	<0.18	1.6	-	-	0.070	0.146	0.055	0.025
	18	186	20	37	95	24.7	293	120	7.82	-	90	9.8	25.0	0.28	0.26	540	55.3	1.50	<0.18	1.8	-	-	0.070	0.112	0.047	0.025
	38	187	-	-	-	-	-	-	7.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	30	188	23	39	97	24.7	300	122	7.95	864	92	10.6	22.8	0.30	0.23	710	56.3	1.50	<0.18	1.7	291	95	0.072	0.111	0.048	0.027
	69	190	-	-	-	-	-	-	8.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	98	195	-	-	-	-	-	-	-	784	-	9.5	-	0.23	-	-	54.6	-	-	1.4	-	-	-	-	-	-
	123	202	20	35	97	24.3	293	122	7.80	819	90	10.4	22.1	0.25	0.29	740	64.6	2.00	<0.18	1.8	281	92	0.059	0.060	0.030	0.015
	169	203	-	-	-	-	-	-	7.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	207	-	-	-	-	-	-	7.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	160	209	-	-	-	-	-	-	7.99	798	93	12.1	-	0.30	-	-	73.3	-	-	1.8	-	-	-	-	-	-
	194	215	28	36	96	23.8	300	128	7.87	774	94	16.4	25.0	0.32	0.32	710	108.2	2.00	<0.18	3.6	278	89	0.054	0.058	0.020	0.014
	273	221	-	-	-	-	-	-	7.79	804	92	18.6	-	0.40	-	-	116.9	-	-	4.6	-	-	-	-	-	-
	297	228	20	37	102	23.2	283	130	7.90	832	87	8.8	23.6	0.46	0.39	1860	67.8	1.10	0.28	5.7	280	-	0.046	0.095	0.019	0.015
	332	235	17	33	99	23.7	278	125	7.95	877	91	10.3	23.6	0.56	0.55	710	103.2	1.10	0.28	5.7	280	88	0.040	0.078	0.019	0.015
	360	240	17	34	97	23.7	256	123	7.87	839	86	21.3	24.3	0.49	0.45	780	201.5	1.10	<0.36	4.5	-	-	0.045	0.065	0.020	0.015
LR2-9	9	181	20	39	100	25.2	315	122	7.81	-	88	12.6	22.1	0.28	0.26	820	64.9	1.50	<0.18	1.3	-	-	0.069	0.198	0.059	0.027
	39	187	-	-	-	-	-	-	7.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	31	188	23	39	101	25.7	331	124	7.83	831	93	10.8	22.8	0.28	0.26	620	55.0	2.00	<0.18	1.6	273	88	0.076	0.209	0.070	0.030
	70	190	-	-	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	99	195	-	-	-	-	-	-	-	812	-	11.4	-	0.25	-	-	57.0	-	-	2.0	-	-	-	-	-	-
	124	202	20	37	94	25.7	303	122	7.72	855	95	9.4	20.7	0.30	0.26	710	46.3	1.50	<0.18	2.4	275	89	0.066	0.160	0.059	0.024
	170	203	-	-	-	-	-	-	7.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	151	207	-	-	-	-	-	-	7.88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	161	209	-	-	-	-	-	-	7.92	853	96	9.5	-	-	-	-	45.6	-	-	1.6	-	-	-	-	-	-
	195	215	20	40	99	24.7	336	134	7.90	840	98	11.7	20.0	0.35	0.23	650	66.9	1.50	<0.18	2.6	293	94	0.054	0.069	0.037	0.015
	274	221	-	-	-	-	-	-	7.78	834	97	10.0	-	0.27	-	-	52.3	-	-	2.3	-	-	-	-	-	-
	298	228	<28	354	99	24.7	321	136	7.95	899	97	4.3	20.7	0.27	0.36	2310	32.8	1.10	<0.36	1.9	273	-	0.061	0.150	0.052	0.020
	333	235	17	41	99	25.3	270	142	7.93	952	100	4.7	20.0	0.31	0.45	1140	34.6	1.10	<0.36	2.0	267	84	0.075	0.161	0.055	0.030
	361	240	17	42	95	23.2	319	138	7.90	901	100	9.4	20.7	0.28	0.39	750	74.5	1.10	<0.36	2.1	-	-	0.080	0.150	0.052	0.026

Table A.5.4. Chemistry data for the 1983 limnocorrals. (Units are µmoles/L unless otherwise stated).

Limnocorral	Sample no.	Day of year	Cl	SO$_4$	Na	K	Ca	Mg	pH	Alk µeq/L	DIC	Spec Cond µS/cm	Susp N	TDN	Susp P	TDP	DOC	Susp C	SRSi	Fe	Mn	Chl a µg/L	TSS mg/L	O$_2$	Absorbances (10 cm path length)			
																									455 nm		543 nm	
																									Centri	Unfilt	Filt	Centri
DFM83-1	429	182	-	-	-	-	-	-	7.20	-	867	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	443	188	25	45	103	25.8	356	152	7.55	830	-	89	4.2	35.7	0.32	0.45	820	31.6	25.4	3.35	0.26	2.6	4	270	0.088	0.110	0.040	0.039
	473	202	23	45	103	26.4	266	116	7.57	830	834	88	33.3	44.3	0.88	0.32	840	386.2	16.9	3.19	<0.18	4.8	10	267	0.078	0.164	0.034	0.025
	489	213	-	-	-	-	-	-	-	-	723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	541	217	20	45	101	28.0	271	119	7.25	870	984	88	7.9	47.1	0.44	0.61	950	54.1	14.8	5.55	0.54	4.0	5	203	0.100	0.144	0.059	0.038
	556	224	-	-	-	-	-	-	7.65	-	965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	586	236	-	-	-	-	-	-	-	-	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	595	237	25	40	106	28.0	304	120	-	825	792	84	14.0	49.3	0.65	0.65	830	153.4	30.4	12.49	0.27	-	6	297	0.148	0.212	0.085	0.050
SP83-2	430	182	-	-	-	-	-	-	7.30	-	849	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	444	188	25	47	100	29.9	367	160	7.10	835	-	92	5.4	33.5	0.44	0.61	930	43.1	19.8	2.79	1.05	1.2	2	177	0.142	0.158	0.094	0.087
	474	202	20	42	102	36.2	282	122	6.86	885	1018	93	29.4	44.3	1.25	0.81	1870	118.2	21.0	14.65	2.35	2.4	6	22	0.232	0.324	0.170	0.150
	490	213	-	-	-	-	-	-	-	-	893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	542	217	23	41	102	54.3	291	126	6.60	990	1144	96	35.0	57.1	3.63	1.03	2330	274.8	26.6	22.88	3.77	31.6	8	<10	0.349	0.504	0.250	0.238
	557	224	-	-	-	-	-	-	6.95	-	1220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	587	236	-	-	-	-	-	-	-	-	1145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	596	237	31	25	103	60.6	282	126	-	930	1078	96	37.1	52.8	2.70	0.77	1390	341.7	35.6	9.71	4.57	-	9	33	0.323	0.580	0.224	0.199
LM83-3	431	182	-	-	-	-	-	-	7.00	-	748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	436	187	-	-	-	-	-	-	7.62	-	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	445	188	25	46	102	24.3	289	145	7.25	640	-	70	2.7	28.6	0.22	0.39	790	22.3	28.8	1.12	0.26	0.8	2	259	0.093	0.086	0.046	0.043
	475	202	25	45	99	28.0	200	95	7.44	570	646	73	3.6	30.7	0.34	0.39	640	27.5	31.4	1.91	<0.18	1.1	2	240	0.093	0.096	0.053	0.037
	491	213	-	-	-	-	-	-	-	-	567	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	543	217	23	43	101	32.6	215	104	7.25	705	738	75	3.4	67.8	0.35	0.55	910	28.1	33.4	0.69	0.27	1.8	2	220	0.092	0.092	0.050	0.038
	558	224	-	-	-	-	-	-	7.30	-	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	588	236	-	-	-	-	-	-	-	-	699	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	597	237	25	39	103	32.6	209	104	-	735	675	72	5.2	38.5	0.49	0.45	830	42.0	29.2	0.69	0.27	-	2	269	0.079	0.069	0.034	0.025
C83-4	437	187	-	-	-	-	-	-	7.83	-	771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	446	188	25	45	102	23.8	345	152	7.60	845	-	88	7.1	57.1	0.44	0.32	740	49.3	17.7	0.56	0.26	2.8	3	286	0.078	0.082	0.029	0.028
	476	202	23	45	98	23.3	271	116	7.68	865	779	91	6.3	30.7	0.44	0.36	780	52.8	8.4	5.73	<0.18	3.2	2	269	0.062	0.078	0.022	0.019
	492	213	-	-	-	-	-	-	-	-	694	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	544	217	23	44	100	25.4	278	116	7.54	875	852	89	4.7	60.7	0.35	0.32	820	39.1	7.1	<0.72	<0.18	2.0	1	249	0.058	0.062	0.024	0.022
	561	226	-	-	-	-	-	-	8.30	-	834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	589	236	-	-	-	-	-	-	-	-	817	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	598	237	25	40	102	25.4	275	117	-	850	816	85	4.3	42.8	0.39	0.45	700	41.8	17.6	1.39	0.54	-	2	266	0.058	0.085	0.029	0.015
OSA83-5	432	182	-	-	-	-	-	-	7.70	-	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	438	187	-	-	-	-	-	-	7.91	-	779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	447	188	25	46	100	23.8	345	145	7.70	845	-	92	3.6	52.1	0.27	0.36	710	26.5	15.9	<0.54	0.26	1.0	3	295	0.069	0.087	0.027	0.027
	477	202	23	46	100	23.3	295	120	7.81	890	817	95	5.1	32.1	0.30	0.32	740	34.8	6.9	0.64	<0.18	2.1	1	271	0.057	0.072	0.022	0.018
	493	213	-	-	-	-	-	-	-	-	723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	545	217	23	43	98	25.9	311	130	7.62	945	934	98	5.4	100.6	0.25	0.45	540	35.8	5.0	0.69	0.27	2.4	2	249	0.052	0.072	0.031	0.019
	562	226	-	-	-	-	-	-	7.95	-	956	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	590	236	-	-	-	-	-	-	-	-	996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	599	237	25	40	100	25.9	311	132	-	1005	928	99	5.7	39.3	0.39	0.52	690	36.3	11.5	3.47	0.54	-	2	271	0.058	0.093	0.042	0.015

Table A.5.4. Cont'd.

Limnocorral	Sample no.	Day of year	Cl	SO_4	Na	K	Ca	Mg	pH	Alk μeq/L	DIC	Spec Cond μS/cm	Susp N	TDN	Susp P	TDP	DOC	Susp C	SRSi	Fe	Mn	Chl a μg/L	TSS mg/L	O_2	Absorbances (10 cm path length)			
																									455 nm		543 nm	
																									Centri	Unfilt	Filt	Centri
OM83-6	433	182	-	-	-	-	-	-	7.50	-	794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	448	188	25	45	100	23.8	345	160	7.58	845	-	89	3.9	47.8	0.27	0.36	760	26.1	27.2	0.56	<0.18	1.1	2	275	0.075	0.078	0.030	0.023
	478	202	23	44	101	25.4	262	114	7.62	835	791	90	4.3	30.7	0.25	0.32	770	42.0	27.3	1.91	<0.18	3.4	1	270	0.068	0.059	0.030	0.030
	494	213	-	-	-	-	-	-	-	-	680	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	546	217	23	47	99	25.9	291	123	7.62	780	861	89	2.9	60.0	0.18	0.32	770	26.8	24.9	1.39	0.27	2.0	2	253	0.060	0.050	0.026	0.022
	563	226	-	-	-	-	-	-	7.80	-	834	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	591	236	-	-	-	-	-	-	-	-	791	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	600	237	25	40	103	25.9	266	123	-	865	802	85	1.5	35.0	0.14	0.36	660	18.3	21.8	2.08	0.27	-	1	269	0.051	0.035	0.021	0.013
LM83-7	434	182	-	-	-	-	-	-	7.05	-	803	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	439	187	-	-	-	-	-	-	7.53	-	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	449	188	23	46	100	24.3	289	138	7.32	660	-	71	3.7	71.4	0.23	0.39	770	24.0	28.9	0.56	0.26	0.8	2	261	0.089	0.094	0.046	0.031
	479	202	23	45	104	26.4	229	105	7.40	680	667	75	2.5	30.0	0.21	0.45	1250	20.8	32.0	1.91	<0.18	0.9	2	246	0.087	0.096	0.054	0.032
	483	203	-	-	-	-	-	-	-	-	685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	550	216	-	-	-	-	-	-	-	-	729	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	547	217	23	43	99	31.6	242	110	7.35	750	765	78	5.2	35.0	0.40	0.23	1090	46.5	33.0	1.39	0.27	2.0	3	229	0.077	0.088	0.045	0.030
	564	226	-	-	-	-	-	-	7.30	-	746	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	592	236	-	-	-	-	-	-	-	-	725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	601	237	25	40	101	33.6	247	117	-	775	736	78	6.4	41.4	0.65	0.58	820	51.8	17.6	0.69	0.27	-	3	271	0.070	0.108	0.037	0.019
LMS83-8	440	187	-	-	-	-	-	-	7.58	-	634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	450	188	23	46	101	25.8	289	142	7.32	660	-	71	4.9	75.7	0.45	0.45	780	30.3	29.2	1.12	0.26	1.1	8	262	0.093	0.272	0.064	0.033
	480	202	23	45	100	27.4	235	107	7.39	655	659	73	3.1	34.3	0.41	0.48	840	37.6	34.3	2.55	<0.18	1.7	6	235	0.094	0.182	0.065	0.034
	484	203	-	-	-	-	-	-	-	-	671	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	551	216	-	-	-	-	-	-	-	-	688	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	548	217	23	43	103	31.6	229	111	7.48	720	715	77	9.3	83.5	0.66	0.48	900	58.6	35.3	1.39	0.27	9.3	4	245	0.080	0.178	0.049	0.032
	565	226	-	-	-	-	-	-	7.70	-	720	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	593	236	-	-	-	-	-	-	-	-	708	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	602	237	25	40	101	33.6	235	113	-	750	698	76	6.0	41.4	0.67	0.55	780	50.5	20.9	1.39	<0.18	-	8	271	0.071	0.245	0.049	0.019
L83-9	441	187	-	-	-	-	-	-	7.80	-	779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	451	188	25	44	100	23.8	390	163	7.65	860	-	91	3.2	28.6	0.25	0.36	680	20.5	25.2	1.12	0.26	2.9	5	281	0.072	0.162	0.051	0.023
	481	202	23	43	102	24.8	302	122	7.72	865	796	92	3.6	31.4	0.21	0.32	730	23.6	26.8	1.91	<0.18	1.7	2	272	0.061	0.104	0.043	0.020
	485	203	-	-	-	-	-	-	-	-	796	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	552	216	-	-	-	-	-	-	-	-	802	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	549	217	23	43	94	25.4	280	117	7.70	865	825	89	2.9	30.7	0.21	0.39	680	20.8	28.9	0.69	<0.18	2.2	3	258	0.058	0.108	0.048	0.023
	566	226	-	-	-	-	-	-	7.80	-	790	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	594	236	-	-	-	-	-	-	-	-	822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	603	237	25	42	95	25.4	289	123	-	905	830	89	2.6	37.8	0.21	0.42	630	20.6	33.9	1.39	<0.18	-	3	270	0.074	0.120	0.046	0.012

Table A.5.5. *In situ* respiration in the limnocorrals through the night of Aug 19-20, 1981.

Limnocorral	Sampling time		Time Between Samples	Depth	Oxygen Conc (µmol/L)		Respiration Rate
	Aug 19	Aug 20	(hr:min)	(m)	Aug 19	Aug 20	(µmol/m^3·h)
C81-1	21:45	5:15	7:30	0	291	279	1601
				1.5	291	279	1540
				2.5	288	274	1903
LM81-2	22:05	5:30	7:25	0	270	240	4183
				1.5	262	232	4118
				2.5	231	215	2288
PN81-3	22:20	5:40	7:20	0	331	312	2721
				1.5	331	311	2874
				2.5	322	311	1615
LS81-4	22:40	5:55	7:15	0	270	265	704
				1.5	270	264	788
				2.5	262	262	-78
C81-5	22:50	6:05	7:15	0	287	277	1376
				1.5	282	275	941
				2.5	279	274	652
HS81-6	23:05	6:20	7:15	0	277	270	1037
				1.5	263	270	-945
				2.5	268	267	54
C81-7	23:20	6:30	7:10	0	290	283	1039
				1.5	287	283	575
				2.5	282	283	-119
L81-8	23:40	6:50	7:10	0	277	274	379
				1.5	275	267	1097
				2.5	264	262	240